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ABSTRACT

The Governing Board of the Unesco Institute for Education, in its 21st Session held in Hamburg in April of 1969, decided to publish a book commemorating the tercentenary of the death of Jan Amos Comenius. This great 17th century educator is still a constant inspiration to those concerned with the improvement of contemporary education. Publication of the book was considered a most appropriate activity for the International Education Year of 1970. Distinguished scholars of four nations have collaborated to write the story of a Czech teacher, born March 28, 1592, who became the world's first great international educator. C.H. Dobinson, J.E. Sadler, Damar Capkova, Bogdan Suchodolski, and Jean Auba have contributed chapters on: Comenius as a Man, The Recommendations of Comenius Regarding the Education of Young Children, Comenius and Teaching Methods, Comenius and the Organization of Education, and Comenius as an International Citizen. Focus is on his own training; his views on education, government and society; his love of learning; and his lasting and meaningful contributions. Major Works of Comenius and Works Concerning Comenius are listed. (JMB)

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COMMEMORATION OF THE TERCENTENARY
OF THE DEATH OF COMENIUS

COMENIUS

AND CONTEMPORARY EDUCATION

AN INTERNATIONAL SYMPOSIUM

edited by

C. H. DOBINSON

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1970

UNESCO INSTITUTE FOR EDUCATION, HAMBURG

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Unesco Institute for Education, Hamburg. 1970

Jan Amos Comenius
1592 - 1670

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FOREWORD

The Governing Board of the Unesco Institute for Education in its 21st Session held in Hamburg in April 1969 decided to publish a book commemoratingthe tercentenary of the death of Jan Amos Comenius. This great 17th century educator is still a constant inspiration to those concerned with the improvement of contemporary education. It was therefore thought that such a book would also be most appropriate as one of the Unesco Institute's activities for the International Education Year of 1970, which has been designated by the General Assembly of the United Nations at the suggestion of UNESCO.

The Unesco Institute is indebted to Professor C. H. Dobinson, Emeritus Professor at the University of Reading, whose skilful editorship has made the publication of this book possible, as also to all contributors for the work and research involved in writing the articles contained in this international symposium.

PREFACE

It was a happy thought of Dr. Tetsuya Kobayashi, Director of the Hamburg Unesco Institute for Education, that the coinciding of the International Year for Education with the tercentenary of the death of the world's first great international educator should not be allowed to pass unrecognised. Indeed, the significance of this coincidence is so great that he felt justified in publishing a volume on Comenius which should not only stress that seer's vision of education as the great uplifter of all humanity to a common plane of intellectual and fraternal understanding, but should in itself exemplify this view by being an international symposium.

He was, of course, fortunate that outstanding scholars from four countries were willing to share this task between them. But to attribute this success merely to good fortune is to overlook the most important factor bringing it about—namely the chord which was struck in the heart of each one of these great scholars by Dr. Kobayashi's concept. Not only was there the memory of the passionate appeals of Comenius, centuries ahead of his time, for an international educational body and for the universal spread of learning without distinction of colour, race or creed, but there is today the world-wide call, especially from the young, for leadership out of the valley of the shadow of death. While nations pile up nuclear and biological armaments the future of all humanity hangs in precarious balance, and ideological conflicts, of which the seeds are generally sown in the schools, keep these devilish activities alive and developing.

So, any approach which sees education as something transcending nationality, frontiers and language, and as calling forth, from every human being, those thoughts and feelings which make him feel concerned about the welfare and happiness of every other human being is both a source of inspiration and of hope.

Cynics and pessimists are always with us and tend to be unduly vocal, and, had there been discussion, twenty years ago, about the possibility of human beings walking on the surface of the moon they would probably have been in a strong majority. Now that the "impossible" in the physical world has been achieved, men and women everywhere are challenged to achieve the impossible in human relations and to make warfare unthinkable.

The task is prodigious, but progress has been made and is

continuing; like Comenius we must hold fast to the vision and never cease to work for its fulfilment. It is, indeed, the heroism of Comenius, the way in which he never faltered in his aims despite sufferings and adversities piled continually one upon another, that has given his message particular meaning to all subsequent generations. For it is easy to talk and write of "pie in the sky" when all is comfortable and smooth and healthy and friendly around one: it is a different proposition when all the evidence of experience encourages pessimism and profound doubt. So, by the example of his life, Comenius, as it were, sanctified his views. Just how valuable these views were—and still are—is made clear in the chapters of this book.

It has been one of the main aims of the writers, and of the Editor, that despite the scholarship which lies behind every chapter, the book shall be eminently readable, even, in parts, exciting emotionally, as well as intellectually. Indeed, it is difficult to consider the life and thoughts of this heroic visionary without emotion. There are probably very few writers of today whose thoughts will be worth reconsideration—and that universally—in the year 2270 A.D. Still less is it likely that their writings will justify the united efforts of distinguished scholars of four nations.

As Editor, I wish to express my gratitude to these scholars for their willing cooperation, and, particularly for having confined their writing to the one aspect of the thought of Comenius with which they were asked to deal, while, all the time, their minds craved to write the whole book!

Anyhow, as a result of their remarkable combination of knowledge, enthusiasm and self-restraint, we now have this international symposium—something which uniquely symbolises simultaneously some of the purposes of Unesco and some of the vision of John Amos Comenius.

C. H. Dobinson

CHAPTER I

COMENIUS AS A MAN

John E. Sadler

This is the story of a Czech teacher who died three hundred years ago. Not perhaps a very successful man but one who has been recognised by his own countrymen and many others as a great thinker and hero. In this, the tercentenary year of his death, he may become an inspiration to men and women of all creeds, races and nationalities.

His name was John Amos Comenius and he was born on March 28th, 1592 in a village in Moravia, a province of what was then the kingdom of Bohemia. His father was a respectable and pious member of a religious group known as the Unity of Brethren [1] which had begun in the fifteenth century as an experiment in Christian living. Comenius and his three sisters were brought up in a strict but happy atmosphere according to the rules of the Brethren. When he was but twelve years old his peaceful life was rudely shattered by the death from plague of father, mother and two of his sisters. This terrible blow not only changed the whole course of his life but inevitably left an indelible impression on his mind; so, many years afterwards, he told how his sympathy for all orphans and bereaved children had a poignancy which sprang from his own sufferings.

From the age of twelve to sixteen Comenius suffered at the hands of an improvident guardian and of incompetent teachers. Subsequently he came to feel intense pity for all those children who were exposed to the care of teachers ignorant of their art, who were wearied by the teachers' 'windy and parrot-like loquacity' and who were beaten as if they had 'skins of tin'.

From such a condition he was saved by the generosity of friends who sent him to the grammar school of Přerov where he was fortunate to come under the influence of a wise head-master who recognised his gifts and encouraged him to study. Even though he found the methods of teaching not very enlightened Comenius was an eager pupil who made astonishing progress. He was brought to the notice of one of the leading members

of the Unity of Brethren as a suitable candidate for the ministry and, since he could not attend the university of Prague,[2] he was sent to Germany for his higher education. He went first to a Calvinist academy at Herborn and then to the university of Heidelberg. In both places he found inspiring teachers who taught him to take the whole of human knowledge as his field of study. He was introduced to the revolutionary ideas of the Englishman, Francis Bacon,[3] and so learnt the value of a scientific approach to human problems. He accepted the doctrine that the millenium of Christ's reign on earth was imminent. He did not become a profound scholar or an erudite specialist but he read widely and took the universe for his text-book and sought to understand the unity of all things there.

On his return to Bohemia Comenius found much reason to look forward to the future. For a time he taught in his old school and helped his friend the headmaster. He still found the methods of teaching defective and, to help his pupils, he wrote for them a Latin Grammar. At the age of twenty-four he was ordained and two years later was appointed minister of a flourishing church at Fulnek. He had a mixed congregation of Czechs and Germans and preached to them in their own languages. He took a very broad view of his responsibilities to them. He taught them such practical arts as bee-keeping. He taught their children in a school adjoining the church and supervised the training of young men aspiring to enter the ministry. Despite such a full programme he wrote pamphlets concerning such matters as the wicked oppression of poor people. He had a love of the countryside which he explored and made a map of the province of Moravia which was published. During his travels he collected proverbs, idioms and sayings for a book which he entitled *The Treasury of the Czech Language*. At the same time he had a very happy domestic life. On coming to Fulnek he married Magdalena, the step-daughter of the burgomaster of Přerov, and soon rejoiced in the birth of a son.

Suddenly this situation was changed and his prospects were upset by the outbreak of war between Protestants and Catholics. A Protestant had been elected as king of Bohemia but this was disputed by the Catholic Ferdinand of Austria. At the battle of the White Mountain just outside Prague the Protestant king Frederick was defeated and driven away. Ferdinand took the

crown and soon showed his determination to suppress Protestantism entirely. He sent his soldiers all over the country to begin a bitter persecution of those who would not conform to his edict. When they came to Fulnek Comenius escaped, but they destroyed his church and library. His wife was expecting another baby and she had to stay behind until it was born and then both she and the two children died of plague. Comenius heard this news with much anguish but he was only able to keep alive himself by hiding in various secluded places where he had a measure of protection from well-disposed landowners. One of these was the Count Žerotin who had previously supported him as a student. This Count still enjoyed some immunity from persecution and had a large estate at a place called Brandys. It is still called the Komensky Valley and there Comenius hid for a considerable time and managed to write books and tracts to keep alive the faith of the Unity of Brethren. He must have had some degree of freedom for he showed his confidence in the future by marrying the daughter of one of the ministers.

Nevertheless, he was a fugitive moving from place to place for safety and constantly saddened by the news of the flight or death of his friends. After seven years of this kind of existence he was asked by those who survived to go to Poland in search of a more permanent refuge. There he found in the town of Leszno a group of Brethren who had escaped years before and were enjoying the protection of the local lord. Encouraged by the favourable report a considerable number gathered secretly together and, led by Comenius, they crossed the mountains in the winter of 1628 and found their way to this new home.

Comenius quickly accepted the situation and was only too glad to become a teacher at the grammar school which Leszno boasted and once more turned to the writing of books which he had planned during his years of solitude. He was greatly cheered when the Brethren managed to get their printing press out of Bohemia since he knew that his books could be printed. Before long he was made secretary of the church and this meant that he had to keep in touch by correspondence with all those exiled in many different places. At the same time he was not without hope that Ferdinand would be defeated because, although the war which had started in Bohemia had subsequently spread to Germany, the Protestants had a redoubtable champion in Gustavus

Adolphus, king of Sweden. So Comenius began to plan for the day when he could go back to Bohemia and take part in the establishment of a better society than he had known before. Education was to be the key to the new state and Comenius wrote a 'Brief Proposal regarding the renewal of schools in the kingdom of Bohemia'. In this he put forward the view that society could only be reformed if there would be a 'wise and prudent system of schools' in which the 'entire youth of the nation' should be educated. It was a forecast of a national and comprehensive system in which children of all classes would be brought up to love their native culture but would also be given the key to a more universal culture through the Latin language. He did not accept that the learning of Latin need be such a painful and protracted task as teachers made it. With more intelligent teaching it could be made so easy that any child could achieve it. Therefore he wrote a text-book which he entitled a 'Gateway' to the learning of language. This differed from all previous books by not insisting on grammar and in giving descriptions of all things useful to know. It was originally written in Czech and Latin and intended for Czech children, but when a German edition was published the 'Gateway' quickly became famous throughout Europe and Comenius was 'encouraged beyond expectation'. By this time, however, the restoration of Bohemia had come to seem less and less likely. So Comenius turned his mind to the thought that if education could become universal the way would be opened to a universal reform of human society.

In some ways the time was propitious for such a wonderful idea for there were many men in Europe who shared it. Amongst them was a German merchant living in London, named Samuel Hartlib, who was a prominent member of a group of ardent political and social reformers. He came to know of Comenius through two students of the Unity of Brethren who were studying in Cambridge and when he received from Comenius an outline of his proposals he had it printed and distributed to scholars throughout Europe. The response was favourable and Hartlib urged Comenius to come to England to advise about the setting up of a college for universal education.

After much hesitation Comenius agreed to come and after a difficult voyage he reached London on September 21st, 1641

and was welcomed by Hartlib and a group of prominent scholars and politicians. He must have looked rather shabby because he reported back to Leszno that he had been taken to a tailor to make him 'new clothes after the fashion customary among English divines'. Thus equipped, he went to dinner with the Bishop of Lincoln but soon got over his embarassment when he learnt that the English parliament proposed to set up a college 'with its revenues for a number of men called from all nations' and that he was to guide it.

While plans were being discussed Comenius busied himself with writing more essays and memoranda. But soon it became obvious that civil war was threatening in England between King Charles I and parliament, which, consequently had no time to follow up the scheme that would use Comenius. He waited for ten months and then began to look round for other avenues. Some French scholars wrote to him and, with the support of Cardinal Richelieu,[4] invited him to Paris, but the untimely death of the Cardinal brought that scheme to an end. There is evidence that he was invited to become president of Harvard College and he was greatly attracted by the possibility of introducing the new 'experimental philosophy' to America, but nothing came of it. So, finally, he accepted an offer from the Swedish Chancellor to prepare a series of Latin text-books using the new method of the 'Gateway'.

In order to do this work Comenius settled down at the town of Elbing on the southern shore of the Baltic, but his idea was to link the text-books with a more far-reaching scheme of universal education based on philosophical foundations. The Swedes, however, were not impressed and urged him to get on with the more utilitarian task for which they were paying him. Poor Comenius! He wanted the text-books to grow out of the philosophy and he struggled hard to satisfy both his employers and his own ideals. He failed, and consequently became harassed with financial difficulties and both he and his wife, who had joined him, became ill. Yet he still pressed on. The final disappointment came when peace was made between Protestants and Catholics and the independence of Bohemia was no part of the settlement. His co-religionists in Leszno were cast into despair and Comenius decided that he must return to help

them. On the way back his wife died and he arrived with a young family to care for.

This year of 1649 was probably the darkest he ever went through but he survived. He was fortunate to find another woman willing to be his wife and she proved to be an affectionate help-meet to him and a good mother to his children. It was not long before a new invitation to service came to him through the request of a Protestant prince in Hungary named Sigismund Rákóczi that he should establish a school there on the basis of his theories of education. It was a tempting offer, since it gave him an opportunity of proving that his ideas would work and thus of convincing others of the practicability of universal education. But he was loth to leave his new wife and a church that seemed on the point of breaking up altogether. He knew that the journey to Saros Patak where the Prince lived would be hazardous and that Hungary was a backward country where there were few teachers. It says something for the loyalty of his family and friends that they urged him to accept and something for his own courage that he accepted this commission as a call from heaven. He realised it would probably be his last chance to justify his claims to have discovered a universal method.

So he set off. On his arrival at Saros Patak in 1650 he was much encouraged by the warmth of his reception and delighted to hear that the Prince was betrothed to the daughter of the king who had been defeated at the battle of the White Mountain, since he saw in this couple new hopes for the Protestant cause. He found, too, some enthusiasm among the local people for the new school and was pleased when a rector was appointed who had been in England in the circle of Samuel Hartlib. The Prince had set aside for the project several buildings and spacious gardens, so that there was quite a campus and in addition there was a printing press available.

With great enthusiasm Comenius set to work to prepare for the opening of the school. He set himself to re-write the text-books in the Magyar language. He composed a detailed outline of the organisation of the school and gave lectures explaining his methods. After nine months, in February 1651, the first class assembled, numbering about one hundred in all, and coming from all ranks of society. Comenius was thrilled.

Unfortunately things soon started to go wrong. The worst

disaster was the untimely death of Prince Rákóczi and his bride within a few months of their wedding. With that support gone the new rector, who at first had seemed to co-operative, became jealous and the teachers began to lose interest in a scheme that they did not really understand. Comenius thought they were lazy, but the trouble was that many of the pupils could hardly read, and there was much delay in getting the text-books printed. Comenius realised that they must have something much simpler and so he began to prepare a picture book for them. He said it was a book for young children, or for those with 'flickering wits'. A few sample pages were printed, but he could not find artists to make the wood-cuts for his 'Picture of the World', and so the children of Saros Patak never saw a book which was to become world famous for others.

Whether Comenius would have been able to overcome these difficulties no-one can tell, for news of a fresh outbreak of war between Catholics and Protestants made him decide he must return to Leszno. But certainly his venture into Hungary was not a complete failure. The school continued, even if not quite on the lines he had planned, and his valedictory address was listened to with appreciation by a large audience of well-wishers. He took back with him the manuscript of the picture book and when it was completed he sent it to Nuremberg where there were skilled artists and where it was printed. He was only just in time; shortly afterwards a Catholic army came to Leszno and with savage brutality burnt it to the ground. As many of his manuscripts as possible were buried before Comenius and his family escaped into the forest with nothing but the clothes they wore. After great hardships and much sickness they were re-united in the city of Amsterdam where Comenius was received with kind hospitality and given a pension sufficient for his needs.

Supported by his benefactors, he collected such of his manuscripts as he could recover and published them in an edition of about a thousand pages in 1657. He then turned his attention to the task which had for so long occupied his mind; that of writing a major work on the reform of human affairs. Even if men would not listen to him while he was alive, he hoped they would do so after he was dead. But it was a formidable undertaking and he was crippled with sciatica and saddened by the apparent break-up of his church. His faithful wife, Jane Gajus, died and

he himself felt that he was engaged in a race with death to finish the work to which he had been called. His spirit was indomitable and he went on writing to the last. Finally he gathered around his bedside his son, Daniel, and his most intimate associate, Christian Nigrinus, and begged them to see that his books were published. The end came on November 15th, 1670 and Comenius was buried in the French Reformed Church of Naarden on the Zuyder Zee.

The bulk of his manuscripts were not published. They were copied out by Nigrinus and passed into the keeping of a religious group at Halle in Germany. There they remained in an orphanage library until at last they were discovered in 1935 by a Russian scholar and published in Prague in 1966.

To make a judgment of Comenius is not easy, because there were so many contrary facets in his character. There are those who would dismiss him as an honest but muddle-headed fanatic. They would say that he has no message for a world of science and technology because his outlook was essentially medieval. They would accept that he was an heroic figure but argue he was a pathetic failure without significance or relevant message for the twentieth century. They would rank him as a simple, good man without personal ambition or any meanness of character, but neither a great thinker nor a successful reformer.

Such a judgment would be one-sided and inadequate. He had certain blind spots, but they were those of his age, and his perception of what was really necessary to enable man to escape from his vicious circle was far ahead, not only of his own age, but of ours too. He was a man with a vision and, even if he failed to put it into practical effect, we can learn more from his failure than from the successes of many lesser men. He was convinced that the break-through in the course of history which he looked for would come as soon as ever men, throughout the world, *believed* it to be possible. To awaken them to this belief became for him an imperative duty, and his life-long endeavour to fulfil this duty must surely entitle him to be accounted a truly great man.

CHAPTER II

THE RECOMMENDATIONS OF COMENIUS REGARDING THE EDUCATION OF YOUNG CHILDREN

Dagmar Čapková

The deep and lasting interest of Comenius in education began during his life in his native country and continually gathered momentum from the terrible dehumanisation of central Europe during the Thirty Years' War.[1] His views also owed much to his deep study of contemporary and past cultures, both Czech and foreign.

As basis for his ideas he used the best traditions of Czech national education, in particular the striving after a permanent defence of truth and of freedom of conscience; after moral responsibility and noble character; after moral responsibility and noble character; after social justice and after a true brotherhood of man manifested in the work of all men for the benefit of all men. Continuing the theory and practice of democratisation of education which had been started by John Hus [2] and his followers, the Hussites, Comenius planned education for absolutely everybody, without any distinctions of race or sex or creed or social origin or nationality. He also advocated special education of children suffering from defects, whether physical or mental, believing that a careful education can greatly improve the lot of such handicapped children.

The work of Comenius on the education of children reflects his great desire that his ideas should be of benefit to his own nation and lead to enrichment of its culture. He wanted to see his nation provided with a wisely constructed system of good schools, and he called one of his great educational projects *The Czech Paradise*. When in 1620 his native people lost freedom and independence and Comenius was persecuted in Moravia and Bohemia and in 1628 had to become an exile, he continued to support those struggling for the political independence of his people. He also began expanding *The Czech Paradise*, translating parts of it into Latin, the international language of his era, in order that it might

benefit other nations. It was this writing which ultimately became *The Great Didactic*.

The place of the education of young children in the work of Comenius

In the educational writings of Comenius a very important place in the system he advocated was always given to the education of infants and of all children. No doubt the theories and practice of the Unity of Brethren,[3] the religious group into which Comenius was born, was largely responsible for this. The Unity was a Czech Protestant community where people lived in mutual relations of brothers and sisters helping each other. They had been so often persecuted in the 15th and 16th centuries, sometimes not being allowed to have schools, that they had developed family education and this had helped them and their outlook to survive. So the Brethren continued to be much concerned with the education of very young children, believing it to be exceedingly important.

From the Brethren Comenius also doubtless derived his belief in the wide social function of education. Following the views of John Hus they believed that all men are made in the image of God and as such share the same right (which is also a duty) to be educated, to develop their natural gifts and to continue striving towards perfection throughout their lives. This view, further developed, appears in the system of universal education *of all men*, from birth to death, advocated by Comenius from 1640 onwards, as a very efficient method of universal social reform. It is explained in full in his *General Consultations on the Reform of Human Affairs* (De rerum humanarum emendatione consultatio catholica). But even here, as in *The Great Didactic*, great stress is laid upon the education given to the infant and child in its earliest years.

Moreover, to Comenius it seemed only natural that education should start as early as possible : "It is easier to educate than to re-educate," he says. For him children are celestial plants, and, like terrestrial ones, they must be tended and cultivated from the very beginning in order that the promise enshrined in the seed shall be brought to fruition. In order to be prepared for acquiring "life wisdom" it is essential to begin early. More-

over, looking at the rapid increase in knowledge, even in his era, and the progress of society, he adds : "We have to learn much more than our ancestors did if we wish to be equal with them."

Aims of education concerning young children

In planning the education of the child Comenius was always concerned for the later full development of the human being and the ultimate purpose of life. So, even in pre-school and primary vernacular education, he would familiarize the child with the object of the whole human life—namely preparation for a blessed life after death. So the quality and nature of this preparation is of great importance.

The preparation during life on earth must be a matter of purposeful education, with a concrete goal made possible by belief in the perfectibility of the human soul. Hence the preparation was to strive after perfection by knowing the truth, by choosing the good and deliberately rejecting what is evil, by deciding what ought to be done and doing it to the benefit of individual and social life. Of course special educational goals must be set for each of the different periods of life—for pre-school, primary vernacular school, adult education and old age—and these must be determined by the abilities and possibilities associated with these stages of development. But childhood, and especially early childhood, must have priority in this planning. "Childhood is the spring of life" says Comenius "and we must not miss the first opportunity to prepare well the soil of our field. The man who wishes for a full harvest must sow the whole field that he possesses. So, as the seed which is to yield the harvest is sown early in spring (or even in the preceding autumn), the seed for a good life must be sown at the beginning of the life."

The social aim—to reform everybody and every society, all men, was accompanied by the requirement that education should not be limited merely to the period of formal schooling but should extend from pre-school age into adult life. For Comenius education of infants—even preparation of the mother during the child's pre-natal period—is the fundamental stone upon which to build the whole system of subsequent education and upon which to construct the universal reform of human society. "By and large we are all of us what our education has made us."

Comenius as a European reformer of the education of children

What differentiated Comenius from all others in the Europe of his time who sought to reform education was his concept of education as a life-long process—"from the cradle to the grave" as we can succinctly describe it. In his endeavour to make this picture of education convincing he had to explain in detail what he wanted to see developed not only in the primary vernacular school, but also in pre-school education, and the proposal of, and stress upon, this education at the early infant stage set him apart from—and centuries ahead of—all other educational writers of his day.

At the same time his clear grasp that education has to be a life-long process—a view that has been implemented only in some countries,[4] despite the fact that television could make learning exciting and delightful—explains why Comenius could not be satisfied with partial solutions to the great problem. These partial solutions deal with such problems as the teaching of languages, curriculum and syllabuses, techniques of instruction including the use of pictures ("visual aids" as we could call them now) and so on. Comenius wrote on all these matters because they formed concrete parts of the whole concept, but all the time he saw these smaller things against the great backcloth of universal education of all men, throughout their lives and with this education bringing about the material and spiritual improvement of both man and society. In the world of today, which grows progressively more materialist and more cynical, there are few who are bold enough to write books which carry such a message.[5]

With all his idealism, Comenius was also a realist and he recognised that no real progress towards his vision could be achieved without far-reaching changes in the nature of schooling all over Europe. With his great intellectual gifts and his acute sensitivity he responded to the leading currents of thought in 17th century Europe. So he recognised, almost with passion, the vast discrepancy between the changing horizon of man (through the impact of developing science) and schooling where methods of one-sided memorization, and lack of contact with real life, dominated the scene. It is true that humanism in the previous centuries had endeavoured partly to replace the medieval goal

of ascetic education by reviving the ancient idea of harmony between the physical, moral and aesthetic aspects of education, and had advocated a milder discipline and a concern with man as an individual. These thoughts influenced Comenius, too. But by his time the later humanists had appealed so much to the literary authority of ancient Greece and Rome that they had imprisoned their own ideas within a new form of literary formalism and their doctrines had thus become sterile. No general vernacular school of compulsory education of all children without any distinctions existed, no vernacular school that would form the first grade of a school system for all children from the age of six.

Educational Realism

Comenius, like Michel de Montaigne [6] and J. Wolfgang Ratke [7] before him demands that the education of children should be based on their surrounding world, on real contemporary life. "Words should not be learnt without any reference to objects." Otherwise it would not be possible to distinguish the essential from the accidental and the needful from the harmful and unnecessary in the life of all men.

Comenius considered that the complete universe, with the Earth, planets and stars, must constitute a harmonious whole: this he called the macrocosm. He regarded the stratifying (and externally and internally graded) parts of it—the most significant parts of it being nature, man and God—as being inter-connected, having originally been related.

The knowledge of the principles valid in one of the main strata may help in discovering principles which apply in another stratum. In this way Comenius applied his observations of nature to the life and education of man and from these observations drew his principles of gradual, easy, pleasant but thorough teaching and learning as he expounded them in his *Great Didactic*.

Man in his development forms a very important stage in the evolution of the world, since he, as a little world himself (microcosm) is linked with nature and is physically a part of it. But he possesses also capacities which are specifically human, i.e. manual skill, the power of speech, reason, will and sentiment; the task of education is to train these powers from the earliest

age. Man, as a unique creature in the world, may ultimately achieve complete mastery over nature. He can also, through his work, his morality and his piety achieve mastery over himself and so approach God-like perfection.

The integration of knowledge with the personality of the child

Therefore one of the goals of education was to get man, from infancy onwards, as he passes through the further stages of development, to achieve "universal life wisdom", i.e. to know the *essential* things concerning nature, human society and God. So Comenius sought, in textbooks which he wrote, such as *The Visible World* and *The Door of Languages*, to facilitate this process in the early stages. Moreover, if the universe is a harmonious whole then all the manifestations of man, who as the microcosm reflects the macrocosm, should also form a harmonious unity. This thought led Comenius to the conclusion that there should be a harmony of training: of body and the senses, of speech and activity (play in the first stage of development, work in the later stages) of reason, of morality and of piety.

In all his educational thinking Comenius criticised scattered partial knowledge; he wanted to integrate human knowledge both for the purposes of the education of children and for scientific research. He believed with Socrates that man was basically good, with Francis Bacon that "knowledge is power"; he selected knowledge not only for the purposes of the investigation of nature but also for the improvement of man himself and of human affairs. He aimed at a "universal life wisdom" which was wider and deeper in scope than that found in the usual text-books or encyclopedias of his time. From the principles of reality and from the vast multitude of things, Comenius made a selection of those which would "make man wise and happy", would lead him towards truth, so that "rightly formed by reality, each man will stand beyond precipices of error and hazard and walk in the paths of righteousness". This was important even for the education of young children, because this was considered the most influential first step on the way to a peaceful harmonious society.

Comenius stood at the crossroads of many paths of thought of

his and past times. He shared with many of his contemporaries the belief, which had originally emerged among persecuted religious sects, that a millennium of a better harmonious society was approaching. The task of all men was to be well prepared, to work for the advent of it, not only individually but also socially. In his *Consultatio* Comenius tried to show how to be prepared in the life of the individual as well as in society as a whole. However, in contrast with social reformers such as Sir Thomas More,[8] Thomas Campanella[9] and J. V. Andreae,[10] Comenius did not depict the ideal society in an unknown country or island but in the concrete European society. And education was not treated by him as something marginal, but as a vital human need for perfecting human nature.

The content of education of young children

The ideas on the education of very young children expressed by Comenius in his *School of Infancy* and in the *Great Didactic* were supplemented by him in the fourth part of his *Consultatio* i.e. *General Consultation on the Reforms of Human Affairs*. This part is entitled *Pampaedia* i.e. *Universal Education* and includes the pre-school education of children i.e. prior to their reaching the age of six.

Family education. Parents and their relationship wih children

The natural place of earliest education is the family and that is why Comenius considered first the pre-conditions of a good family. Successful education of infants depends especially on the parents, on their moral and intellectual level—and therefore upon a good marriage based on continual deeper knowledge of each other and of respect for each other. *Both* parents, according to Comenius, should be educators of their children; *both* of them are therefore responsible for the health and the mental and moral state of their children. They should ensure that the household becomes a place of love, of mutual respect of all persons, of a well ordered life so that everybody knows his rights and duties and is prepared to help and advise the others at any time. Comenius explains that the family should be "a little school", "a little state" and "a little church" and thus indicates

the wide social function of family education as he conceived it. Through the mutual relationships of all the persons living in a family children are educated for understanding social relationships. Comenius discusses the problem of the authority of the educators and of the spontaneity of children, so that when speaking about the authority of parents he always combines it with their duties towards their children; their essential duties, like those of teachers, were: to know how to educate their children, to wish to do so and to be able to do so.

Comenius criticizes the parents who give much thought and care to their material possessions but neglect the education of their children. He speaks poetically about children who "ought to be dearer to us (parents) than gold and silver" and "deserve to be loved by us, certainly not less than we love ourselves". "Children are celestial flowers and just as terrestrial flowers must have sun and rain, so children must have love." This is the way his own loving heart, that of a father of children, sought to persuade other parents that nothing in the world can deprive children of the right to be the dearest possession of their parents.

Comenius admonishes also the parents who think that they have performed all their duty if they teach their children how to eat and drink and walk, and how to talk properly and dress themselves. These things alone are insufficient, since the most important care is that of the soul, of the mind and heart, in order that children can begin to know God. Moreover, they must get to know the surrounding world and to start carefully and wisely to regulate themselves, training both their external and internal powers for prudent action in the various situations of life.

Whilst on the one hand Comenius advocates close affectionate relationship between parents and children, on the other hand he speaks out against homes where children are permitted to do anything they like and to grow up without discipline and correction. He refuses to accept the excuse for such a situation of parents who say "He is only a child; he does not understand". On the contrary, says Comenius, "The mistakes of early education accompany men throughout their lives". A mild discipline, without any violence, without making the child afraid, but involving the correction of faults at their early stages and with prudent praising to encourage the child; this is the core of the advice given by Comenius.

The prenatal period and the care of babies

Parents should prepare themselves for their task before the child is born. Environment and heredity—both factors are considered by Comenius. Father and mother should care for their health but also for their moral profile, in order that their first examples for their child may be the best ones.

Comenius pays the highest attention to the physical and moral state of the prospective mother, for her behaviour may affect the unborn child. He gives detailed hygienic advice —how to exercise the body, the necessity to maintain a careful regimen of diet, avoiding alcohol and spicy hot food and the need to avoid extremes in movement, in temperature, in feeding and even in sleeping and how she should prepare herself for her future feeding of her baby. Natural feeding of babies by their mothers is essential, said Comenius, from the point of view not only of the physical development of the child, but also from the mental and moral point of view; as psychologists and psychiatrists three centuries later have been at pains to try to teach mothers all over the world. Further, said Comenius, fine development of the infant can be assured by careful and constant attention to all needs of new born babies. Later the primary concern of parents should be to cater for all the bodily and sensory needs of the baby, ensuring opportunities for exercise and play. Still later in the life of the baby, regular eating, sleeping and playing gets the child used to further regularities and to a certain degree of orderliness in its life as it begins to grow up.

Activity and play

Comenius made recommendations which show him to have been a sensitive observer of the development of even very young children. He urged that educational use should be made of a child's desire for movement not only for encouraging the proper use of the limbs but also for the development of the mind and speech. The mother should bring close to the child objects in which he shows interest and give them names and let him play with them and toddle around with them. Activity is an essential feature of life, so "Let the children be like little ants, continually occupied in doing something, carrying, drawing, constructing

and conveying". Comenius advises how to provide children with proper toys with which they can imitate the working activities of adults and so gradually prepare themselves for future tasks. Training in activities should always be incorporated in the educational programme of children both at home and at school. Comenius pointed out the multiple effects of children's play—physical, manual, social, moral and, of course, in speech development. It is far better for a child, says Comenius, to play with other children rather than alone, since communication sharpens the intellect and influences the child to think not only of himself. By means of well-designed play—and play is as necessary for children as food and sleep—educators can integrate the fundamentals of a child's development, including the appreciation of the beautiful.

Of course, Comenius realised that not all parents can arrange for their child to play with others, so in one of his writings he suggested that children from the immediate neighbourhood might play together under the guidance of honest women who would guard them and instruct them. There is no doubt that in his thought on pre-school "education" of such a kind Comenius drew upon the tradition of some congregations of the Unityof Brethren, which, because the mothers were out at work, had sent pre-school children to the Unity's primary schools just to watch instruction and he knew of suggestions for a kind of nursery school which had been made by S. Hasenmüller.[11] Moreover he was familiar with, and quotes, some games with the alphabet by Saavedra.[12]

Nevertheless, in his insistence on the educational importance of the pre-school years Comenius was centuries ahead of his time.

Periods of development of children

Comenius divides the whole of human life into "Schools of Life", that of the pre-natal period being the "School of Birth" followed by the School of Infancy covering the first six years of life, then the "School of Childhood", for primary education from six to eleven. But he finds a marked difference between the problems of children under three and those between the ages of three and six and in other periods, too, he finds subdivision into shorter periods to be necessary. He calls these shorter periods "Classes".

So one of the "classes" of the "School of Infancy" is called the "Class of Prattling and First Steps". At this stage Comenius thinks that speech can be helped along in connection with the beginnings of walking and when perception has become more efficient. That is why Comenius was so insistent that young children should be given the greatest possible opportunities of contact with the environment, especially with nature. Pictures and other devices should be used as a substitute for reality only when absolutely necessary, but the driving aim should be to let the child perceive things as they are in reality.

In the "Class of Perception" which comes later, regulated and directed observation helps the development of a child's reasoning powers and so prepares the way for moral education in the "Class of Morality". Through the training of all the senses the development of hand, tongue and mind may easily be integrated at an early age.

Knowledge of the world

Before the age of six no *formal* instruction regarding things and phenomena can be given. However, parents should keep in mind a systematic introduction to knowledge of all things which are important for life, such as phenomena of the natural world, of human life and its relationship to God. Obviously the presentation should be such as the child can appreciate and understand at a given stage. For instance, regarding knowledge of the sky, the child should be trained to discern the differences between sun, moon and stars; at a later period he learns that the sun and moon rise and set, that the moon sometimes shines full, sometimes a half moon, sometimes a crescent; at the age of six that the days are shorter in winter and longer in summer which means that with nights it is vice versa etc.

Comenius also advises that when a child observes something of interest in nature when he is on a walk, when he gets home he should try to draw what he has seen and should be encouraged to talk about it. So Comenius trains almost simultaneously mind, speech and hand; and this aim should be followed deliberately in school education later. Children are quick to recognise differences not only between kinds of plants and kinds of animals but between types of men and women and their conduct (right

and wrong) and the behaviour even of social groups. They should be encouraged to talk about their impressions and helped, in matters of human behaviour, to establish right values. They may be helped, too, to see the relationship between family, community and the state etc.

Text-books

Trying to help people to put his ideas into practice, Comenius produced what we may call a text-book (though this was not his first activity in this field of publication) which was aimed at the very youngest school pupils but suitable also for some of the pre-school children. He called it *The Visible World* and in 150 short sections, all accompanied by pictures, tried to deal in an elementary way with aspects of nature, both inorganic and organic, with man, his physical development, manual skill, various kinds of his work (including mental) with rest and play of children as well as of adults, with the stages of man (child, youth, married couple, parents, old people) with social relations good or bad (wars), with moral life and man presented in allegorical pictures of virtues, with religious life in various churches, etc. Things and phenomena are presented in such a way that children may notice their correlations and development always from a lower state to a higher one. If the child recognises that man becomes master over nature through his work and that he can also master himself, i.e. control his behaviour, then firm foundations for developing a world view will have been laid.
All things depicted in the book were given a name and as ideas moved from the very simple to more complex so, of course, inevitably did the wording.

Preparation for the public vernacular school

Before they entered the publicly provided vernacular primary school which Comenius urged should be universally established for children between the ages of six and eleven, the little entrants needed to be prepared both mentally and psychologically. Earlier paragraphs have shown how Comenius would have arranged the mental preparation, together with ensuring that the play of

children from five to six years of age contained elements of working activities.

The psychological preparation was to be given by the attitude of the parents towards the school—their words of praise and admiration for the teachers and their reference to school as offering great opportunities for acquiring both knowledge and happiness. In this way the future entrants could be brought to look forward to it with pleasure and would start school with the right attitude.

As Comenius saw it, the main task of the public primary vernacular school, starting as it should with training observation and perception, was to move over to training the powers of reasoning and to integrate with reason the spoken word, the written word, manual and physical activity, play and reality itself. Comenius, by the ideas he put forward, is one of the founders of the classroom education of a group of pupils of the same age who learn the same curriculum under one teacher who is occupied not with individuals only, but teaches a greater number at once.

Moral and religious education

In accordance with his conception of the world as a harmonious whole, created by a perfect God, and in conformity with his view of the final purpose of life, all the writings of Comenius are penetrated and suffused by religion. This, however, was not a religion which, like Calvinism, tolerated the idea of predestination. Comenius was convinced of the educability of *all* human beings. For him the whole business of man acquiring knowledge had a moral purpose. Even the selection of things for study must be directed towards the training of the heart and the will, in addition to the training of the faculty of reason.

For pre-school moral education Comenius recommended the continuous example of virtuous conduct. Discipline should be mild but well regulated and strengthened by properly timed and prudent instructions for exercises in right conduct. Admonishing and praising should be used in support of right action, but carefully and with advice where appropriate.

Comenius gives a list of virtues to be achieved by children as they grow up and in these he betrays his concern with what, in modern parlance, we should call logical, psychological and sociological

interrelations. In his survey the first virtues, namely cleanliness and sobriety relate to the physical environment; others like truthfulness relate to intellectual maturity, to human work (industry), to self-control (modesty, patience) and to respect for other people and to social relationships.

The work of Comenius contains also references to what today we call aesthetic education. He wanted to develop the appreciation of beauty in nature, in human work of all kinds and in human relations. The development of this aesthetic sensitivity leads to children forming right decisions which do not neglect the welfare of others. In such aesthetic development music, singing, reciting, language training and religious education all have a part to play.

The Relevance of Comenian Principles of Universal Education of Infants and Young Children to Modern Education

Within the plan of action drawn up by Unesco for International Education Year 1970 attention has been focused upon a number of requirements for both the expansion and the improvement of education.

Among them are the following :

(1) Education is to be taken in its broadest sense, so as to include all forms of instruction and training. This actually emphasises the second requirement.

(2) Education is a life-long process.

(3) Education is for *all* human beings : so there must be equal access to it for girls and boys, for women as well as men.

Although these ideas are being given prominence and special drive in the year 1970, they are really Comenian ideas, put forward by Comenius more than 300 years ago. As for (1) Comenius wrote that there should be no boundaries between fields of education, as between intellectual and moral education, for example, or between individual disciplines. This latter point has been stressed in his concept of education of young children.

Life-long education is entirely a Comenian thought. It was Comenius who first had, more than 300 years ago, in a world largely uneducated, the vision to realise that the coming of science

had so changed life that nothing short of life-long education could suffice if the world was to be made a happy place.

As for education of *all* human beings, this thought could almost be called the sheet-anchor of the philosophy of Comenius as, undaunted, he endured the succession of cruel misfortunes that life gave to him, and this point is made more clear in other chapters of this book.

In this chapter we have been concerned only with the ideas of Comenius on the education of children from birth to eleven years of age. We know today that pre-natal care is important and all recommendations of Comenius concerning the health and the best conditions for the prospective mother sound quite modern. Regarding the education of the pre-school child, it is only today the world as a whole has recognised the full significance, from the point of view of the development of a worthy adult, possessing all or many of those qualities which we admire, of those early pre-school years.

In some countries, like Italy, and socialist countries, complete pre-school provision has been incorporated into the system of schools. It consist of family education combined with the care of babies in creches and later, as tiny children, in nursery schools. These institutions answer the demands of a society where the women are regularly occupied in employment outside the home. Nursery schools enable the children who have no brothers and sisters to enjoy companionship with other children.

It has been found that, on the whole, combination of family education and then nursery schools for children of the age between four and six can be satisfactory. Institutional care for the very youngest children, under the age of three, suffers from the problem of deprivation of children and their lack of constant individual care. In some socialist countries a great problem remains in the difference of outlook between those providing institutional care for very young children, babies, up to the age of three, and those providing the later pre-school period. In the first stage psychological views dominate, creches being controlled by the Ministry of Health and there is a lack of any educational guiding or thinking. In nursery schools, on the other hand, one can sometimes find lack of psychological insight. We recall that though, admittedly, Comenius differentiated between the younger and older pre-school age, he always considered them

within a greater whole and with not such a different approach as we have just described; indeed he regarded the development of the infant as a unified continuity.

Comenius wrote that a smooth and gradual transition to the primary school is necessary. This is another problem of contemporary pre-school education. An intermediate stage which is a psychological, mental and also social preparation for formal schooling has long existed in England in the infant schools and in France in the écoles maternelles since 1882. In socialist countries this intermediate stage is organised by introducing the elements of school learning in a very simple way into the last year of the nursery school. In the German Democratic Republic they have established a system of the so-called "Play and Learning Afternoon." Children whose parents have not sent them to a nursery school meet the teacher of the first primary class, make acquaintance with him (or her) in order to be prepared in advance for regular attendance at the primary school. In the socialist countries the question of pre-school teacher training has been discussed in connection with proposals that the last year of the nursery school, i.e. between five and six, should be made obligatory for all children.

The Comenian concept of universal education of infants and children in general may also be relevant, for his argument was that through play not only could the spontaneity of children be developed but also that a beginning could be made in the acquisition of the systematized knowledge which he considered so important. While socialist countries and Italy always set educational goals and after that proceed to the problem of how to integrate them with the spontaneity of children, in some countries pre-school education does not have any goals other than the development of the creative abilities of children.

The view of Comenius that perception, physical activity (which may be manual) and speech must all be developed simultaneously stimulates further consideration of detailed ways this principle may be realised in everyday life. The Comenian concept of play is especially acceptable in modern education as a means to universal education of all children. It is very informal in comparison with the intellectualism of Froebel and fits well with the ideas of educationists who are intent on preserving conditions for the development of the creativity of children.

Comenius, as the first writer in the field of pedagogical theory, was far ahead of his time. The leadership of Comenius in regarding pre-school education as important not only for school education but for wide continual social reform in our present rapidly changing modern society has been fully recognised.
But the great vision of life-long education of all men and women all over the world, to which the pre-school education was only the introduction, still remains unfulfilled. Comenius is a forerunner of genetic psychology, and his work in which he tried to show ways of integrating education with the fullest development of the human personality of child and man remains a source of great inspiration in any time, such as today, when the forces of dehumanisation of life are in the ascendant.

CHAPTER III

COMENIUS AND TEACHING METHODS

Bogdan SUCHODOLSKI

The "labyrinth of life" and a reformation of the human world by general education

Comenius conceived the world as a "labyrinth". This metaphor is deeply rooted in the medieval traditions of mysticism and ascetism, of despair and scorn of this "vale of tears", full of misery and yearning that death alone can soothe. These accents are strong in the religious writings of Comenius. But the world-as-labyrinth metaphor reveals another and novel aspect, too. The legend says that there is a way out of the labyrinth, a way that can be found by following Ariadne's thread. Comenius looked persistently and bravely for the way out of the labyrinth "to the open plains", as he said in one of his last works. He felt that it was his task to show the right path to the human race, going astray in the labyrinth of bad schools.

"Every man can become a man" was the fundamental principle guiding the efforts of Comenius in organising the school system, elaborating curricula and patterns of management structures, formulating teaching methods, and writing the handbooks and textbooks. Comenius fought against the medieval school system with its scholastic curriculum and methods and its peculiar organisation, as well as against certain aspects of the newer elitist Latin school of the humanists. He postulated a democratic uniformity of the school system, at least for children up to eleven years of age; such schools were supposed to prepare their pupils for the exigencies of real life, and to "educate a man" in them by using the vernacular in the teaching process, and by awakening the children's interests and by producing zeal for hard work. A well-organised school ought to implant socially useful practical skills as well as scientific knowledge of the natural environment.

Comenius's programme cannot be labelled as simply antifeudal, as it expressed much more than the reformist tendencies of the bourgeoisie. His was the fate of a miserable exile, and his ideal

of a democratic humanism reached into the future, beyond the limitations of the newly emerging capitalist system. It was a utopian ideal, but Comenius felt the needs of the popular masses deeply enough to overcome both the narrow elitist view of the humanist school, and restriction to manual skills of the vocational training for the so-called lower classes. He defended the right of each man to a full development, and thus to be offered an opportunity to gain full knowledge about the world besides versatility in practical affairs.

Comenius cherished the hope that the reform of education would bring about a reform of the world. From this viewpoint he described education as "the common good of all people". He addressed "all those who have power in the several states, churches schools and families" summoning them to apply the discoveries and recommendations of pedagogy, so that there should be "less ignorance, confusion and dissent, but more light, order, peace and silence".

In an oration devoted to the cultivation of talent (De cultura ingeniorum oratio) Comenius presented in detail the social advantages of education, and their significance to the state. He emphasized that the enlightened nations, in opposition to the ignorant ones, know how to make the best use of the soil's fruits, to make it more fertile, to organize industry and trade, to handle the whole economy most efficiently. The enlightened nations are able to establish a legal order defining the rights and obligations of every citizen, and a system of health protection designed to conserve human strength. The enlightened nations establish equitable human relations, based on mutual services, understanding and good will. It is in their countries that learning flourishes and explains things that used to be unintelligible, and so does art which shapes the feelings of men. In the *Pangersia* Comenius brought out the role of education for the improvement of international relations, for the general peace and welfare of all people. In his *Didactica Magna* Comenius wrote : "It is time to ring the bell of awakening, to push the people out of their indifference and torpidity, in which they remain, neglecting the dangers threatening themselves and their relatives. It is the Europeans who ought to wake up first, to make the other nations follow them and unite together".

Accordingly, Comenius urged very strongly an international

development of science and learning, and of the art of education in particular; he sought contact with various institutions; he postulated new patterns of international cooperation. For instance, he proposed an international college for the science of education in which "all efforts ought to be united, aiming at an ever more exact discovering of the bases of this science, at making the light of knowledge shine ever more brightly and be more effectively disseminated among the people, at the same time as the new and most useful inventions direct the course of human affairs towards their best prospects".

The world of objects and human reason, speech and manual skill

The general pedagogical ideas of Comenius found their expression in detailed considerations concerning the structure of the school system and the methods of teaching of the several subjects. The democratic postulate of common education demanded such methods, so as to bring about fair results achieved by all pupils. Comenius criticized the existing school system most severely, pointing out that chaos and ignorance predominated in it, that lessons were boring and entirely verbal—nothing but words—so that children were discouraged from study. In contrast to the ineffectiveness of school-learning, the training received in normal life experience is most fruitful; the obvious conclusion was that all the methods of teaching must undergo thorough reconstruction.

Comenius based such reconstruction on his philosophical outlook. According to it, "the visible world has been created as a farm for breeding, feeding and educating people". Comenius believed that as the Creator had bestowed man with reason, He must have taken care "that there was proper food for the reason, too". Such nourishment for the human reason is constituted by the variety and mystery of the world revealed to our senses. This is the meaning of Comenius's saying, "it is the world which is our school".

Thus sensual cognition is the first step in education of man. In all his works Comenius directed attention towards the objects around us, in a sublime and emotional style. He also pointed out the necessity of relating sensual impressions to the pupil's activity,

and to the learning of words. He wrote : "Listening must be constantly supplemented by seeing, and the work of the tongue with that of the hands; what they are supposed to learn, must be not only told them, so that it slips through their ears, but it should be painted as well, so as to influence imagination through the eyes. And let them learn intermittently to speak up about it in words and then to express it by hand, so that they do not give up any thing until it has sufficiently imbued their ears, eyes, reason, and memory". Comenius thus established the basic unity of sense-impressions, speech and action, in the process of cognition.

However, cognition is by no means limited to the sensual stage. The principle that it is "the things, and not the teacher, that should speak" to the pupil, extends to the field of reason as well. According to Comenius, human reason is trained by learning from things. It must be supplied with a variety of facts for analysis; it is the proper selection of these facts, and the right timing in supplying them, that is decisive for the proper working of reason, and so for its training. In the work "Ex scholasticis labyrinthis exitus in planum" Comenius put forward ten principles for the training of the powers of reasoning and established three important objectives of this work. Firstly, reason ought to be able to ascertain what exists; this is the level of cognition. Secondly, it ought to answer the question, why whatever exists, does so; this is the level of understanding. Thirdly, it ought to be able to find practical applications for what it has learned; this is the level of utility.

According to Comenius, there are three human elements undergoing education in a proper learning situation. These are : reason, will, and a capacity for action. He wrote that reason is "the inner eye of the soul", attentively enjoying the world around us and faithfully registering its images; will is "the soul's hand", trying to possess knowledge and to master the things; the capacity for action makes use of what the reason has learned and what the will has determined. There are also three tools of our education. These are the senses which are "the soul's windows" through which it perceives the world; the subsequent thinking which is "the soul's mirror" reflecting upon what the senses have brought in; finally, creative deduction, which is "the soul's telescope",

allowing man to learn what is beyond the immediate reach of his senses.

On these grounds Comenius established three degrees of human wisdom and described them as theory, practice, and "chresis". The first degree consists in recognition of things as they are. This is the degree of independent cognition. The second degree is the testing and confirming of knowledge in practical activity. The third degree, termed by a Greek word meaning the use or application, consists in useful action and proper language, based upon knowledge achieved in the life process.

The whole idea has been expanded in the posthumous synthetic book *"Triertium catholicum"* expounding the basic principles of cognition and its training, revealed by an analysis of the process of human cognition as essentially inseperable from speech and action. Man, says Comenius, is a creature that learns, speaks, and acts. Thus education must be tripartite, just like the process of cognition.

Accordingly the book is arranged in a tripartite pattern, showing mutual relations and parallels between the elements of the respective trinities. At the outset we are presented with a graphic pattern of the basic characteristics of man and the ways in which they may be brought to perfection. In this pattern the central place is held by the world of things, with reason, speech and manual skill (mens, lingua, manus) revolving around it like planets around the sun. Reason, being the mirror of things, establishes our cognition; language translates them and constitutes our means of expression; manual skill imitates the things and provides action. To understand means to speak well and to act well. But to speak well means to understand properly and to act properly. In its turn, to act properly means to understand and to speak well. There is no understanding without perfect speech and right action. There is no perfect speech without proper understanding and right action. And there is no right action without perfect speech and proper understanding. The proces of perfection of the human being proceeds within this unified trinity. There are three disciplines serving this process. These are : logic which teaches proper cognition; grammar which teaches perfect speaking; and pragmatics which teaches efficient action. Each of them establishes its relevant norms of conduct, based on adequate experience and contributing to further progress.

The process of perfection of man is most tightly harnessed to the process of perfection of the universe of things. It is from things that cognition flows by way of reason in which the things are reflected; speech is born out of cognition, in which the voice of things is heard. Cognition and speech together give birth to action, which in its turn creates things. In this manner Comenius's conception is connected with his general idea of progress, which he defended throughout his whole life.

Fruitful teaching at school

Comenius based on those general principles a rather detailed system of didactic suggestions, covering the proper distribution and timing of what knowledge was to be taught, the right gradation of its difficulty, its adjustment to cognitive capacities of pupils, its relation with practice. In opposition to the medieval pedagogy, and in some degree also in opposition to the humanist one, Comenius emphasized the necessity to take into account the child's psychology; but he never lost sight of the objectives of teaching, requiring definite material to be taught and definite results to be obtained. According to Comenius, school ought to be a school of play—schola ludus—but only in the sense that compulsion and fear, boredom and indifference must be driven out of its classrooms, while what ought to be taught should be presented in an easy and pleasurable manner.

Comenius devoted particular attention to the methods of teaching of foreign languages and the mother tongue. It is in this field that his opposition against the whole earlier tradition of teaching can be seen in the sharpest relief. Theorists of the humanist school laid emphasis on the teaching of Latin. But they used to teach it without relation to the mother tongue of pupils, advising the abstract method of starting from grammatical rules, leading from examples to "imitation".

Comenius reversed this order. He demanded that "things", and not "words" must be the starting point; familiar words ought to be introduced in the next stage, and only then their foreign equivalents should be found; and texts and examples should come before definitions of principles and rules.

Comenius was particularly interested in the teaching of languages, but he by no means neglected instruction in the natural sciences

which were assigned an important role in his school curricula. He emphasized again and again that it is the teaching about the world which must form the basis of all other instruction. This principle was underlying all handbooks prepared by Comenius. He believed that the right sequence was from observation to principles and to practice. "You will make it easier for your pupil, if you point out to him the everyday use of anything that you teach him .... If you show him what is the use of a thing, you hand it over to him, so that he may become aware of his knowledge and can enjoy its application".

Comenius never separated the process of teaching from the other functions of school. He saw the teaching methods against the whole background of the conditions in which the school worked. This accounts for the fact that he was often concerned with the inner organisation of the school life, and this concern becomes apparent in his "Rules for the Gymnasium at Leszno", "Principles of conduct for youth", "Laws of a well organised school". By establishing these rules Comenius wanted to overcome the widespread chaos in the work of schools, and to point out the possibility of orderly organisation, favourable to most efficient results. According to Comenius, the school is a large workshop forging people. To forge, or to create, people means to develop their reasons, to perfect their language, to cultivate their skills and wills. The principles of work and life of every school ought to be such as to give the pupils the best opportunities to become real men, realising the great possibilities of human nature.

During his last years Comenius developed these didactic conceptions into a project of a large organised system of knowledge about the world which would culminate in utilizing the whole range of human activities. It was the idea of "Pansophia", from the Greek "pan" (all) and "sophia" (wisdom).

Pansophia—the universal and generally useful wisdom

According to the initial outlines of the conception of Pansophia, it was intended to encompass three great circles of study, or the three great books in which to read; these were God, Nature, and Art. According to Comenius, the first of them is repeated in the two others in a definite but distinct manner. The Book of Nature is a simple and passive mirror of the Creator, while

the Book of Art, which is created by men, is its active and free imitation.

Comenius was more and more concerned with the domain of the "human world". But while Francis Bacon [1] conceived it from the viewpoint of its relation to nature, Comenius was more interested in its own inherent structure. For Bacon, the problem of "art" was above all the task of learning the ways of nature in order to utilize its forces; for Comenius it was a problem in its own right. Bacon's question was, why and how men were able to build their own domain within nature's womb. Comenius asked, what sort of world it would be.

Pansophia was something more than a theory aiming at an explanation of a "third world" supplementing the universe of God and that of Nature; it was also a design and a programme of its construction and reconstruction. This concept of Pansophia underlay the summons addressed by Comenius to politicians and scholars, and it was the basis of his school system. In the Introduction to his "Via lucis" ("Way of Light") Comenius described Pansophia as a "system which succeeds in arranging all things present and future, hidden or revealed in an unshaken and unshakable order, and with such clarity that any man who inspects it attentively will most certainly understand all that is in it, or will earnestly agree with it".

Pansophia reveals the truth that there are rules of knowledge inherent in every man, called universal notions; stimuli of desires called universal instincts; and organs of action, that may be termed universal capacities. It is on those principles common to all men that education should be based. Comenius wrote: "We want to have a school of wisdom, which is universal wisdom, and thus an institution admitting all, training them in everything necessary in life, in a manner so complete and so sure that nobody so trained could ever be reproached that he knew something inexactly, or only partially understood it, or could not apply it in the true and right way, or finally that he could not express it skilfully."

Within such approach, Pansophia is the synthetical truth about the world, including understanding and handling of things, and a general rule guiding man's practical application of the use of theoretical knowledge and ideas. It thus encompasses all things necessary for those who wish to become wise, so that the people

who clearly see the ends of all things, and the means to these ends, as well as the proper ways of employing them, are henceforth capable of directing all things in their possession towards good ends, and able to pursue such ends without any risk of error, by means which are good and valid. Thus whoever acts in this way is wise.

The idea of Pansophia was attacked by orthodox religion, as well as by both rationalistically and empirically oriented philosophers. However, it was indeed an attempt at establishing rationalism of a new type, and empiricism of a new kind.

Comenius recognised the merit and strength of human reason, though he defined his confidence in it in terms different from those of Descartes;[2] he also recognised the necessity of observation and of contact with reality, though in a manner different from that of Bacon. Rationalism and empiricism of the type represented by Comenius conceived the world as a whole, and claimed to constitute a fruitful programme for reasonable, just, and generally advantageous reforms. Pansophia, being a full and fruitful knowledge of the universe, was at the same time a knowledge of man as a reflection of the Cosmos, and as the "consummation" of the world. Thus Comenius developed his Pansophia as a philosophy of the universe being essentially a philosophy of man.

Man and his tasks occupy fairly much space in the writings of Comenius. He accepted the traditional doctrine of original sin, but his conclusions were quite unorthodox. Human nature, depraved by sin, requires rebirth, but besides grace and prayer, education is necessary to it. The pedagogical concerns of Comenius are rooted in the belief that each man must undergo a process of education, because his nature is depraved and must be restored to its primary, uncontaminated and true form.

Man should, and is able to, "amend" himself by his own resources. Comenius was trying to foster it by his pedagogical activity. He thought of education as a much more serious enterprise than a mere transmitting of information and training of skills; he believed it to be a real "creating" of man in that it helped to recover the true human nature and to develop its potentialities. Comenius repeated many times that man becomes man by his own human effort This thought was his starting point in his didactic works, and the main theme of his school orations.

But the conception of Comenius was an exact opposite to those traditional theories, in which the improvement of men was described as a result of their own individual efforts, while social conditions of life were reformed as a result of individual amelioration. Even though his projects of reforms were utopian indeed, and underlying them was a belief in the effectiveness of appeals addressed to the rulers of the world, still they marked out a new course in the philosophy of man. The postulate that the reform of man should be achieved by human forces, has been given a new significance as a clarion call to improve the human universe.

The situation of man in the world was described by Comenius as a situation of creative being. According to Comenius, man is supposed to continue the work of creation by perfecting his environment as well as himself. This is why in his metaphysical system the universe of "human art" is situated alongside the divine and the natural universe. Human works are not simple imitations of nature, nor are they designed merely to improve the conditions of everyday life; they perfect nature, reveal what is latent in it as its potentialities, and would have remained latent if not brought out by human invention and labour. Human works, for all their utility, above all constitute a creative development of the world, a continuous supplementation of the divine creation.

Naturalism and humanism of Comenius

Only the greatest saw the greatness of Comenius—and thus Leibnitz [3] predicted a splendid future flourishing of Comenius's ideas, Goethe [4] mentioned Comenius with warm emotion, Herder [5] in his celebrated "Philosophy of the History of Humanity" wrote of him with enthusiasm, and Michelet [6] called Comenius "the genius of light, the powerful inventor, the Galileo of pedagogy".

However, in the opinion of most pedagogues, those of his time and those of subsequent history until comparatively recently, Comenius has been considered as hardly more than a reformer of the methods of teaching, mostly of foreign languages; his merits in developing and systematizing the idea of general knowledge of the universe as the main basis of education remained less

appreciated; still less attention has been given to his concepts of "human nature", the tripartite structure of human mind, and the relations between theory and practice, with the emphasis on action as the factor developing thinking and speech. Actually, it was in those fields of inquiry that Comenius achieved results providing justification for his pedagogical theories and giving them deeper insight, while at the time these results constituted the first step towards scientific pedagogy.

Unlike his other contemporaries, Comenius had deeper than strictly professional insight into the school work; besides giving technical advice to teachers and educators, he tried to formulate problems requiring investigation, and he saw that schools worked poorly, but unlike the others, he took the trouble of asking about the causes, and looking for the answer; he inquired deeply into human "nature", analysing the relations of man and reality, and the means of man's development and perfection.

Under the spell of the achievements of technology based upon knowledge of natural laws, Comenius strove to reform the "art" of education in a similar manner by reconstructing the school system into a great "didactic machinery", working purposefully and efficiently; he was looking continually for such "natural" propensities of man as might form the basis for efficient pedagogical scientific action.

This manner of posing problems opened up a new chapter in the history of pedagogy. Comenius consciously directed this discipline towards a scientific approach to reality, and a scientifically grounded theory of action.

While emphasizing such character of pedagogical theories of Comenius, it must be noted that the beginnings of scientific approach to the problems of education should not be related only to what is known as the naturalist conceptions. Comenius actually did refer to natural and technical examples, but only by way of analogy, to understand better the peculiar qualities of human nature and the ways of realisation of human destiny. It was his intention to make the "art" of education consistent with human nature "but always with the highest intellectual and spiritual possibilities kept in view". He had no use for a materialist interpretation of human life, with human physiology regarded as both the explanation and the motivator of all human behaviour. Instead, he saw clearly the intellectual, moral and spiritual de-

mands which life makes upon human beings and he made these the object of his researches.

There is still another sense of "naturalism" that must not be identified with the theories of Comenius. Those who are naturalists in that sense, believe that education has to recognize in a passive manner what is supposed to be the natural development of a child, while the role of an educator is limited to supervision of this automatic process. Comenius was by no means likely to share such an attitude. He rather emphasized that man becomes man only by an active process of education. Man is a creature that may become different from what it had been, because he learns and acts. Similarly, as the mechanical arts can make something new and more powerful than nature could ever bring about, if left to its own resources, so the art of education makes man into something more than he is by himself. But to be able to achieve it, education must be based upon knowledge of the laws of human nature, like the mechanical arts are based upon knowledge of natural laws. It is in this sense only that nature must be "obeyed". Pedagogical theories of Comenius are wholly permeated by an optimistic faith, that a discovery and development of such "natural method" would open up glorious opportunities of educating all people in all fields. "Man is everything because he can become everything", said Comenius .

This blend of specific naturalism and humanism, which is the main content of the educational theories of Comenius, explains his influence on posterity up to our own days.

The age of enlightenment as a continuation of ideas of Comenius

The approach to pedagogy initiated by Comenius has been continued by Rousseau.[7] He also made frequent references to the child's nature. His device of return to the state of nature was aimed against the feudal social system, and it was an expression of a revolutionary ethos of confidence in life born freely when people were not restrained, and of scorn of those who were "well educated".

Rousseau's pedagogical programme is contained in "Émile", the book that the French aristocrats wanted to burn, and which became a manifesto of the new educational approach up to our

own times. He argued that everything is good when it is done by the creator of nature, and everything deteriorates in human hands. Thus the task of education cannot be given over to people. A child must be given an opportunity to develop freely and spontaneously. According to Rousseau, education should not be a preparation of a child for its future and should not model it in any definite manner; it ought to be identical with the child's life. The teacher should not claim to do more than skilfully to help the child in developing its own neds, drives, feelings and thoughts, which would build up his future personality. Any other claims are unjustified and even harmful. The only source of growth of a man is his own life.

The same direction was taken by Pestalozzi [8] and Froebel [9]. In spite of all the important differences between them, they both were seeking the ways to help the development of spontaneous forces of a child and its own activity. Pestalozzi devoted his whole life to the poorest children, and he had to take care that they were given some means of earning their living, but his main concern was to rear them in accordance with their capacities and potentialities, with their own ways of experiencing the world and society. In his half-mystical language Froebel pointed to the universal unity of the factors that make a child grow spontaneously into an adult by "internalizing" the outer and "externalizing" the inner. This peculiar romantic dialectic of activity found expression in the process of becoming what a child was, and of being what it had become. Such approach went beyond the biological analogies, known from earlier literature and fondly repeated later : it reflected a trace of Hegel's [10] dialectical philosophy. Seeing the development of man in such terms, Froebel must have seen childhood in the dimension of play which allows for expression, exploration, creative action, enjoyment, or to put it shortly, a dialectical feedback of the "inner" and the "outer". Froebel's theory was the first pedagogical conception focused on play.

The thought that education ought to be an outgrowth of the child's life and serve its development, became widespread. R. W. Emerson [11] wrote that education must be as extensive as man, and ought to reveal and reinforce all that is in him.

But all the eighteenth century French revolutionary and seminal thought in pedagogy stems from Comenius, as the result of a

century of evolution of both his naturalistic and his humanist conceptions of education. During this time his view of nature, as being closely linked with the Deity and so with religion, gave way to an interpretation of nature which is entirely lay and non-religious.

However, the basic tendency predominating in the theory of Comenius, i.e., the tendency to approach the tasks of education within the large social and historical perspective of reformation of human affairs, has remained present during the later evolution of pedagogical thought, and it has even become stronger and more radical. The naturalistic pedagogy grew beyond its inherent level of "nature", leading through its struggles for education based on "things" and the taking into account of the peculiar features of psychological development of a child, towards the nobler hopes for social reconstruction and future perfection of man.

But in later times, during the 19th and 20th centuries, there emerged forcible contradictions within the trend of pedagogical ideas initiated by Comenius. The belief in nature, gaining new ground in the evolutionary theories, has been no longer connected with the belief in man's dignity and responsibility, and while it lost support in the great natural order, it has come to be more and more often leading to the land of solitary dreams and utopias.

The 20th century—the age of the child, or of human failure?

Ellen Key [12] welcomed the 20th century as the age of the child. Her hopes have been fulfilled in some respects, but disappointed in others. In this contradiction the basic antinomy of education in the contemporary world is revealed.

Indeed, the 20th century has "discovered" the child. The growth of pedagogical disciplines and of developmental and educational psychology in particular, allowed for a better-than-ever understanding of the child's psyche.

So, in almost all forms of pedagogical training it has become accepted doctrine that there are several important and peculiar features of the psychological development of both children and adolescents for which the teacher should be on the alert. These

will generally be disclosed by the pupils in their thinking, their emotions and their ways of action.

Indeed, pedagogy has always been trying to give advice in educational matters, and it has thus always been taking the child into account. However, its real concern has been about the results of teaching and education, while the process of achieving them might have been either encouraging and attractive to the child, or imposed and compulsory. But now concern has shifted from results which were really separated from the child's universe towards the child's fuller involvement in the educational process. This is the meaning of the saying that the child is not an object but rather a subject of education. The child's activity, his needs and interests, his curiosity and sensitivity have been given utmost significance as the main factors in his intellectual and moral growth. The numerous projects of basic reorganisation of the school system and of the established curricula have been designed to satisfy these postulates. It was believed that the child's mind is interested in reality in a synthetic way, i.e., in concrete wholes encountered in everyday life. On that ground objections have been raised against traditional teaching, divided into so many subject matters corresponding in principle to the accepted classification of human knowledge, and in favour of unified teaching, i.e., such as would permit the child to enrich his knowledge by getting acquainted with concrete phenomena from many vantage points at one time.

While the child's activity has been considered as of paramount import, whatever is apt to stimulate and encourage it has come to be most highly appreciated. Normal classes seemed particularly dull and futile from this standpoint.

All this process of emphasizing various peculiarities of juvenile psychology and activity as the basis of educational efforts must have necessarily led to an emergence of the problem of individuality. While traditional pedagogical theories used to be concerned with a child "in general", it has been attempted now to make for the child as many different opportunities as possible. The school ought to be "tailor-made", as Claparède [13] has put it.

Modern naturalistic pedagogy is in many respects a continuation of the older pedagogy of naturalism, but there is an essential difference between the two as to the ideal of education. The basic

opposition runs between the older notion of education as moulding or shaping the child "in accordance with nature", while the modern naturalistic theory conceives education as a natural development of the child. In the former case education is an exerting of influence of some sort or another, directed by definite objectives, principles and values, while in the latter case it is simply an outgrowth of the child's life.

The idea that education consists in cultivating the child's universe in accordance with its own properties and laws, rather than in imposing upon the children the form and content of the adult universe, has had sometimes its characteristic climax in quite different and more general ways and methods of evaluating the juvenile realm. It has appeared to some not as a reality to be accounted for, but as a type of life incomparably more beautiful and happy than the adult life. Infantile activity and vitality, passionate curiosity, unexpected inventiveness, freedom and daring of expression—all this appeared as something better than the boredom, the discipline, the routine and the hypocrisy of adults. The child's art has been appreciated from this point of view as an expression of the natural propensities of human mind, uncorrupted by education, public opinion, and social impact. Thus the child's universe has been viewed as the real Eden of man, out of which he was expelled and condemned to labour and condemned also to social obligations which suppress the human joy of life. The universe of children has come to perform the role once played by the image of the "state of nature", or of the legendary primeval and happy life of man before property and power had destroyed equality, simple-minded morality, and the unmediated vivid culture. It has become a utopian image of free and happy life led by sincere and benevolent people, devoted to work which is a joyous activity, and to creation which is play. In opposition to the visions of the contemporary world, drawn in sharp, apocalyptic lines, pointing to the dehumanisation of man by repetitive "conveyor-belt" type of labour, by sombre urbanisation, by the burden of the struggle for survival, by war and death—the world of the child has emerged in bright colours of human longing for the free and happy life without compulsion and without hypocrisy, and liberated from boring effort and from the yielding to violence.

Have the hopes of Ellen Key been disappointed? Has the 20th

century not become "an age of the child"? These questions can be answered in the negative only in a very narrow sense. Indeed, significant progress has been attained in understanding the psychology of children and the basic principles of the process of education, particularly in its early stages, as well as in understanding the process of individuation and its difficulties and obstacles. However, this understanding has had but limited social significance.

Education has been conceived as an expression of juvenile life and its cultivation. But then, what has been the concept of the transition from the child's universe to the adult one, or from novelty, curiosity, creativeness into routine, into fixed patterns of behaviour and imposed obligations? What has been the way from the "republic of children" to the state of capitalist democracy?

Bertrand Russell saw clearly that the existing social system and the new man produced by the new education were incompatible. But he advised new ways in education with the objective of transforming the existing society. Curiosity and criticism had to be developed to get rid of the boredom and the dogmatism of adult intellectual life. Similarly, creative tendencies had to be encouraged to make future work and activity of adult people individualized and creative; sincerity and courage had to be cultivated to make future society free of hypocrisy and submission; constructive propensities were supposed to provide outlets for aggressive drives and consequently wars; friendliness and tolerance had to eliminate fanaticism from human relationships.

Such an attitude cannot find its expression in a pedagogical system accepting the existing state of affairs, but rather in a future-oriented one, geared to reformatory social action, looking forward to an existence which could be called really human.

Comenius and the educators' belief in the future

What we now call "education for the future" expresses the faith that the present reality is by no means the only possible one; consequently it cannot be the only system of reference for education. It is the future reality which should constitute such reference. The future is defined by the cumulative effect

of historical necessity and the realization of our ideals. Awareness of necessity protects us from falling into utopian dreams, while the active attitude for the future provides protection from fatalism.

Education for the future ought to precipitate the process of decay of the old, and accelerate the birth of the new, especially whenever both processes are too slow or working badly.

The peculiar tradition of "education for the future" reaches back to those lines of thought in pedagogy that have always refused to accept the principle of adjustment to the present conditions as the supreme task of education, and also to those that criticized reality not to vindicate a withdrawal from it, but rather to contribute to its improvement.

At present, opportunities have been opened up to overcome the basic contradictions of the older systems of education, to realise the ideals which, during history, have been but themes of utopian dreams, to abolish the opposition between the task of educating a man and that of educating a citizen, between the rearing of elites and the training of the masses, or between preparing for intellectual work and for manual labour.

Whether these opportunities will be realised depends upon many factors, but the most important among them seems the awareness of educational tasks in the new epoch, and the capacity to carry them out.

It is only now, after the dramatic experiences of our century, that we begin to realise the humanistic greatness of Comenius, and to appreciate his rationalistic faith in the creative role of education in the work of reforming the people and their universe. Comenius wanted neither to fix the existing social order by referring to the laws of nature, nor to yield to the spontaneous growth of the juvenile psyche in the conditions of life led by the better-off classes. What he intended was the creating of man and the developing of human nature, by means of education; he wanted to develop man in accordance with the objective requirements of knowledge and society, by cultivating his mind and his active skills for the general welfare. Comenius attempted to fight against the existing social order so as to provide every child with an opportunity of full development and of becoming a man.

This is why the "teacher of nations" is so close to us and to our epoch.

CHAPTER IV

COMENIUS AND THE ORGANISATION OF EDUCATION

Jean AUBÁ

In John Amos Comenius, educational philosopher, we have not only a productive and profound thinker but also an inspired informer : driven by the feeling for synthesis of the true planner he was able to devise effective systems which may still be used as models for educational reform today.

Comenius's educational system is based on a double assumption : The first is that the form of school organisation employed at his time is absurd, unproductive and unjust.

"They are slaughterhouses of the mind, where one spends ten years and sometimes more in being stuffed with information which could be learned in one year." [1]*

The second is that man is not responsible for this large-scale mis-use of intelligent minds; it is something which must be attributed to the school structure.

Then, with his profound confidence in the human spirit, and with his disposition towards building complete systems like the great Utopians humanists (Thomas More, Campanella), Comenius can state that : "it is possible to reform and to improve the schools."[2]

He can then proceed to a complete reforging of the school structure with one central idea as the basis : the parallel course of the development of the human mind and of natural development.

Accordingly, the system which : "in everything is the foundation of school reform" "cannot be found elsewhere than in the school of nature". [3]

Thus education which is inspired by an optimistic, rational and naturalist philosophy is not simply the training of a child in school, but becomes a process which involves man's entire life.

The same school for everyone

One of the very original features of Comenius is his demand for a single school for all.

This democratic wish runs contrary to all the institutions of the time, particularly those of the Jesuits who only aimed at society's elite.

"All the children, boys and girls, those of the rich and those of the poor, those of the nobles and those of the ploughman, from the great cities and the small towns, from the villages and from the hamlets should enter the schools on a firm basis of equality." [4]

This demand arises from his conception of the school: "a workshop where the product is men" and "where, to everyone, is taught everything that is worth while knowing". [5]

If it is the purpose of the school to produce men, what justification is there for denying certain people this right? Indeed: "all who have been born as men are here for the main purpose to be men, that is to say, reasonable beings". [6]

Comenius does not stop at the principles but formulates the structures to be introduced:

"In every well-ordered community of men (be it a city, town or village) a school is to be set up as a common educational establishment for the young". [7]

Not only must all children go to the national school (6-12 years) but study must be pursued in the same school by those who wish to continue their education subsequently and by those who will leave at the end of this cycle to earn their living as manual workers.

In effect, even those who will not continue their studies ought to have received such a general education as will promote the full development of all the faculties of a man. It is important therefore that a common general education be imparted to the children in a single common core.

This should be a common core also in order to avoid pre-selection of children of humble origin who would not be able to continue to the higher cycle.

"It is necessary, then, to lead them all together right to the point

where, by being together they encourage one another, stimulate one another and improve one another". [8]
The next cycle therefore (12-18 years) must not be reserved only for the children of the rich because : "The mind blows where it wishes and when it wishes." [9] (cf. "the wind bloweth where it listeth"—Biblical : Editor).
For this reason all schools must be free and the communes must pay all the costs of educating the poor.

Mixed schools

A further consequence of the claim for a universal school is compulsory education for girls. There again Comenius's demand is very much ahead of his time :
"It is impossible to offer any good reason for depriving the weaker sex (. . .) of access to serious studies. The more we teach them to reflect, the less frivolous will they be, for frivolity is generally the result of mental unemployment." [10]

Adaptation to the various types of intelligence

This is the most original consequence arising from Comenius's wish not to "exclude anyone from the benefits of education". [11]
The school system must not be built upon one single type of intelligence such as to eliminate all the others, but should, on the contrary, be able to integrate all, even the slowest minds.
"The fact that there are intelligences which are naturally weak and limited is not an obstacle, but, on the contrary an urgent obligation to cultivate all minds. For the more a child is intellectually feeble and stupid, the more he has need of help in order to liberate himself from his stupidity and to cure himself of his weakness." [12]
Such is Comenius's optimism that he despairs of no one. Dull minds may become alert and shrewd just as much as precocious minds as long as the school system neither rejects nor discourages them from the beginning. In order to achieve this some provision must be made to help the less gifted and the various types of intelligence must be taken into account, as, for example, by making the cleverer children monitors of a group of ten pupils so that they can help the weaker ones.

Demand for organisation on a universal scale

Comenius has even wider perspectives : he formulates his plans on a planetary scale. His system is intended for all men without exception ; for all social classes, for all religions, for all races and all nations.

In his book *The Pampaedia* he formulates a plan for universal education :

"It is essential that we should wish that even utterly barbarous peoples should be enlightened and liberated from the darkness due to lack of knowledge, for they are a part of the human race and the part should be like the whole ; and further, the whole is not the whole if any part is lacking . . . whoever then does not wish to appear a half-wit or evil-minded, must wish good to all men, and not only to himself, or only to his own near ones, or only to his own nation."

"Even Scythia can produce such a philosopher as Anacharsis." [13]

The body which will deal with this universal education is the College of Light (*Collegium lucis*) which is both an international ministry of education and a universal academy. Comenius defines this body in his *Panorthosia*.

This Collegium will open schools in all countries, even the most "under-developed" ; it will supervise the organisation of the schools and the teaching staffs ; it will supervise the improvement of methods and the publication of school books.

That is all described with the detail typical of a Utopianist but, beyond the few naive elements, we find foreshadowed here bodies such as UNESCO or the International Bureau of Education, which aim to promote international collaboration in the fields of education and science.

A plan of the school system according to Comenius

With these principles as a basis Comenius draws up a complete plan of school structures which are to be introduced.

His school system is subdivided into different levels to correspond to the various stages of mental development of the pupil :

School structures

a) *the nursery school* for the very young up to 6 years. The main purpose of this school is to practise and to develop the child's outward senses.

b) *the elementary or national school.* This is open to all children, boys and girls from six to twelve years of age. Teaching should not exceed four hours a day. The two hours in the morning are devoted to developing the intelligence and memory; the two hours in the afternoon to manual and oral exercises.
The remainder of the time the pupils spend in preparing their work, in doing domestic work and physical exercises.

c) *the latin school or gymnasium* open to gifted children aged between 13 and 18. A latin school should be established in each commune. It consists of six classes and teaching amounts to four hours daily.
At the end of this cycle the pupils sit an examination which selects those who are suitable for higher study. The State grants financial aid to students from modest homes in order that they may continue their study.

d) *the Academy.* There should be one academy in each province. Higher education, which lasts a further six years, is followed by a public examination which is very difficult because the Academies have to supply the country with administrators and the future leaders of the State.

Throughout his system, Comenius stresses the vertical unity which should exist between the different teaching cycles. It is not the subject matter that will differ according to the cycles but the method of learning and of deepening and enlarging the content. Each cycle gives a new structure to what the preceding one had covered.

School organisation

For Comenius the school ought also to be a school for the future citizen. This means that it should be a real miniature society. At the head of the school therefore there will be a teacher and a rector who represent the sovereign; a senate, judges, a praetor

(a magistrate elected annually); thus an entire organisation preparing pupils for public life.

Many more features of Comenius's planned school organisation could be examined (the arrangement of the daily timetable, the role of books, manual work, etc.) but more than the structures drawn up by Comenius, many of which appear out-of-date or naive, it is the problems he raised concerning them which are still very pertinent for us.

The relevance of the problems of organisation raised by Comenius

Some of the reforms prescribed by Comenius have become common practice but, unfortunately, a number of the problems he raises are still present today and are central to the reform of school systems in several countries. It is the permanent nature of these problems which give the ideas of Comenius their greatest relevance. Particularly, the point that the school should be open to all on terms of full equality, education being a right of every man.

Several countries have become aware of the injustice of a system which barred from study children of the lower social classes and since the end of the second world war have carried out reforms to satisfy this desire for democratisation. It was however noticed that extending the length of study was not sufficient if, at the same time, the old selective procedures remained, recruiting pupils from different social environments. Here is echoed Comenius's demand that children from different social origins should mix. The American and Soviet systems already offer an example of an *extended comprehensive school* for general education at the second level. In both of these countries all children, after the primary school, follow their general education together at least to the end of the first cycle of secondary school. In the United States it is the "high school" and in the USSR the secondary school for general polytechnic education. Western European countries have introduced reforms to organise a cycle of secondary study for all children of school age by joining together in one single institution previous parallel branches.

— Italian reform of 1962 established a common cycle at the secondary level.
— French reform of 1959, completed by the establishment of the 'Collèges d'Enseignement secondaire' (comprehensive schools) which are intended to take all children from 11 to 15 years of age inclusive. (It is not simply a matter of grouping all pupils together in the Collèges d'Enseignement secondaire but also means offering different types of teaching to the less privileged children; true social justice means, besides grouping children together, also giving to all the kind of support which only some find in the family environment. This concern explains the existence, inside the C.E.S., of the classes of the "college of general education" type and also the "transition" classes.)
— Swedish reform of 1962 which replaced a very complex system of selection by one unified type of organisation, a common core for all children for nine years; the basic school with one higher cycle (the last three years) where, besides the compulsory subjects, an ever-increasing number of optional subjects are offered.
These reforms are far from complete and sometimes raise difficulties of application but they make the way open for an increasing democratisation of education.
One other concern which preoccupied Comenius is connected with a problem which all modern states face : what links should be established between the school and the society, what preparation can the school give for entry into working life ?
Here, once again, the growing need in modern states for senior administrators, technicians and qualified manual workers puts the ideas of Comenius into a true perspective; the ideas of a partisan of a school in contact with the world, training citizens that they may serve the state usefully.
The socialist countries, Sweden, or some countries of the Third World, respond to these needs by actually planning education according to the country's overall goals and according to the capacity of its educational establishments.
Other countries, like the United States, respond by developing "vocational education" (professional and technical education at secondary level) and this is playing an ever-increasing part in the training of qualified manual workers.
Experiments made in several countries with evening courses, or with part-time education linked with industry and commerce,

have the same aim : to adapt the school system to the needs of a modern economy.

And finally Comenius claimed that each man on this earth has a right to education. This right was recognised in the 1948 Universal Declaration of Human Rights of which article 26 reads :

"Everyone has the right to education. Education shall be free, at least in the elementary and foundation stages."

However, in reality this wish is rarely fulfilled, for 52 % of children in the world are unable to attend school for lack of schools and teachers, for 2 out of 5 adults are illiterate and in 97 countries more than 50 % of the population is illiterate.

Yet the whole future of the nations of the Third World depends on the development of education.

On this point UNESCO is striving through its active work to combat illiteracy more than anything else, by projects for basic education, a project for primary education in Latin America which has been running since 1957, a programme of aid to Africa which was introduced in 1960, national programmes for educational planning and teacher training, etc . . ..

On this point too there are still enormous problems to be solved, but some significant results have already been achieved and offer children a greater chance of education then was the case twenty years ago.

We have seen how closely the ideas advanced by Comenius concerning educational structures coincide with what is being thought today.

But Comenius can also serve as a stimulating example in so far as he points out that the scholastic system is intimately bound up with what man wants to make of his future; that through the institutions we set up our concern is for the man of tomorrow.

Hence, the school, "this veritable workshop for fashioning men", bears the respons-bility for the ideal with which we seek to imbue our future citizen.

This ideal proposed by Comenius is humanist and pacifist, with the aim : "That the schools should fashion the man, that they should fashion him in his whole being, in such a way that he is fully competent to perform the functions which fall to his lot in this life and is prepared for the life to come."

CHAPTER V

COMENIUS AS AN INTERNATIONAL CITIZEN

F. E. Sadler

In this essay we shall be thinking of Comenius as an international citizen, and what his remarkable pioneering ideas can mean for us today. Even in this twentieth century there are not many international citizens, however much they may have travelled, or even if they belong to world-wide institutions. Indeed, there are few mankind-sized institutions, and where they do exist they often fail to foster a universal outlook. Thus the representatives to the United Nations Assembly tend to speak for their governments, and not for the world at large. Amongst the permanent officers and technical advisers of the United Nations, and particularly of its subsidiary organisations, there are some who really do put the needs of mankind as a whole first in their minds, but their scope is very limited unfortunately. There are the business tycoons, who have their interests in every part of the globe, but they work for the profit of their companies, so can hardly be considered genuine citizens of the world. There are some who will go anywhere, through religious or humanitarian motives, to give service where it is most needed, but generally they carry their nationality with them, though there are a few noble souls who care for mankind in a disinterested way.

Maybe the reason why there are no international passports is because humanity, as such, is too vast a concept for men to make much of. Those who do are the exceptions to the rule.

Comenius was certainly one who did try to think universally, though he lived in an age when loyalties were even narrower than they are today. Then a man could be looked upon as a foreigner even outside his own town or village. The lines of difference, and therefore of discrimination, were even sharper than now and religion, which should be a unifying force, was often a cause of hatred rather than love. When Europeans felt most keenly that they belonged to Christendom it was as an ideal to inspire them to fight the infidel. It was seldom strong enough to stop them from fighting each other. Yet, amidst all

the strife and bloodshed of the seventeenth century, there were groups of men working for a universal community. Comenius was of this kind and he saw further than most the implications of such an aim.

It could be said that circumstances forced him to have a wider view because he was so often, as it were, pulled up by the roots that he had to develop the mentality of an eternal wanderer, though he never became rootless. For instance, at the age of twelve he lost his parents and had to leave his home town. There followed a not very happy period until certain good friends got him into a grammar school at Přerov where he soon developed a love for learning. For his higher education he was sent to Germany, since there were no opportunities at home. On returning he became a minister of his sect, the Unity of Brethren, and began a life of useful service, rudely shaken by the outbreak of war. For eight years he had no place of security, but lived as a hunted fugitive until eventually he left his own country and found refuge at Leszno in Poland. For some years he waited hopefully for an opportunity to return, but when there seemed no chance of this he accepted an invitation to go to London there to establish a 'college' to promote a better order of society. These ambitious plans were upset by the outbreak of the English Civil War, and once again Comenius was on the move. This time he settled at Elbing on the Baltic where he worked and waited for a just peace to end the Thirty Years War, a peace which he hoped would include the restoration of Bohemia. He came sadly to realise that the politicians were all the time intriguing for national interest, and his cup of sorrow was full when he found even his own church beginning to break up in disunity.

Frustration only spurred this indomitable optimist to greater efforts to bring about a universal community, though he was by now disillusioned with the leaders of Western Europe and answered the invitation of a prince of Hungary. He hoped to achieve the universal community by establishing a revolutionary kind of school which, as he put it, should be a 'workshop of humanity'. He struggled for four years to bring this about, but at last had to give it up and go back to Poland.

Once more war took a hand in the chequered life of Comenius. This time he lost everything and became a destitute refugee

until, after great hardship, he found a resting place in Amsterdam where the Dutch treated him generously. Comenius greatly admired the Dutch, but he found little to admire in their brand of internationalism which seemed to be based on competitive trade. Comenius wondered at their voyages to far-distant parts, but he saw no lasting blessing in scouring the seas for unnecessary luxuries. That way lay conflict, and he was more than ever convinced of the need for all men to co-operate if they wanted an international community. Thus his experiences led Comenius to take upon himself the role of an international citizen.

The problem today is much the same as it was. Despite our boasted technology, we are as far as ever from the one world concept. Now, as then, we produce our best efforts when we have someone to beat, and we are still mainly concerned with sectional interests. We try to capture markets, not share them. When, as sometimes happens, one group merges with another it is usually to gain some advantage over another more powerful rival. Fundamentally nothing has changed.

Most of us realise the dangers of a divided world, but it is strange indeed that we should look for help from a poor exile, a patriot without a nation, a failure in any material sense. But the great strength of Comenius was that he had a genuine loyalty to humanity, whereas we tend to put our hopes on policies that we know are futile. Instead of working all the time for the unity of mankind, we impoverish ourselves as we try to build up impenetrable defences against invincible armaments. We fail, because we have no vision of what a united world would be like, though the truth stares at us: 'One world—or none'. That is why we must at least give Comenius a hearing.

His message could be summed up in three very simple propositions.

1. Mankind is in a terrible mess.
2. Mankind has enormous potentialities.
3. Mankind must rise to a new level of thinking and living in order to realise these potentialities.

Few thinking men would challenge these propositions and yet we fail to act on them. Is it really true that mankind is so selfish, greedy, aggressive, suspicious, fearful that the prospect of rising to a new dimension is unthinkable? We may reflect on the view

of a contemporary of Comenius, Thomas Hobbes, that the case is so bad that we have to have government to protect ourselves from the violence of others. Each group of men, feeling threatened, blames some other group and through loyalty to our own group we acquiesce in policies that we condemn in others. At least we feel helpless as individuals to alter the complex systems acting in our name. The list of opposing groups locked in this apparently hopeless antagonism is endless. If only there were no capitalists (or communists), no blacks (or whites), no Israelis (or Arabs), no grasping employers (or greedy trade unionists) and so on! In all such cases there seems no way out from the vicious circle of misguided loyalties.

But Comenius said there was a way out, and he argued that it could be found by propagating, on a massive scale, a new way of thinking. Admittedly, this implies some manipulation of the minds of men and we shrink from it because propaganda has such a nasty smell in the nostrils of any lover of freedom. We remember how often propaganda has been used unworthily, how it can justify the most abominable evil, how it can be shamelessly employed against the 'enemy'. It debases loyalty, exploits fear, whitewashes falsehood and thrives on the half-truth. So we say, 'Away with propaganda!' We feel that even the best intentions cannot redeem propaganda, and we would not want a world made safe by indoctrinating conformists.

These are strong objections, but Comenius argued that propagation *of the truth* could not be a threat to liberty. In opening up to men the 'way of light' he believed that he was simply confirming what all men knew in their hearts. Thus he says 'our hope may be increased by the thought that the world does not so obstinately grip its own disorders but that it will accept better things if they are offered'.[1] The most important values in life are universally accepted, even if unconsciously, and so there could not be any real objections to a continuous and comprehensive campaign to make them explicit and conscious, provided, of course, that the methods are morally acceptable. For instance, could there be any argument against the proclamation of the idea of the 'one world' since everyone knows it is ultimately in their own interest?

Comenius believed that a new age for the propagation of the light had been opened up by the invention of printing, and

by the art of navigation, so that 'all men may see completely and without any mistake all the things which are necessary for their happiness'. Especially he was impressed by printing, that 'marvellous device for multiplying the number of books infinitely and with amazing speed'.[2] So he proposed that all printing presses should be mobilised to convince man of what they already wanted—the universal community of mankind.

If he was moved to lyrical joy by the invention of printing, how much more would Comenius have gasped in amazement if he could have foreseen the means of mass communication we have today. We have become used to television, but it would have been beyond his wildest dreams to imagine an officer of the college of light speaking simultaneously, and in person, to millions of people in their own homes. This would be far beyond the beat of the seventeenth century imagination, and it does in fact turn the world into a global village.

Few modern broadcasting authorities would, however, claim that they were colleges of light bringing, as Comenius put it, 'the light of dawn to the darkness of the world'. Their fundamental claim is that they respond to public demand. Sometimes this involves titillating the tastes of their audience, sometimes pandering to their passions. In so far as they try to hold a mirror to the world, they select the sensational, the violent and the tragic. Admittedly, mass media give us great opportunities for getting to know and understand other people, but, on the other hand, they give rise to widely different reactions. Our increase of knowledge does not necessarily make us more tolerant or peaceable. Comenius believed that those in charge of communications should select and present news and ideas with one purpose in mind only—the reform of human affairs. He maintained that the key to this was to broadcast only those things which conduced to unity and peace. This is how he concludes his description of his universal college—they should take as their watchword, "Let us return"—'return from dispersion to union, from confusion to order, from the outer fringes of the world to the centres.'[3]

Nevertheless, here was a dilemma which Comenius was genuinely uneasy about. If propagating peace and unity meant drawing a curtain over folly and vice, it also implied censorship and of this he saw the dangers and limitations. For instance he admits

that, even if all 'opportunities and examples of scandalous behaviour could be ordered far from the eyes and ears of man', this ruling would be far from easy to enforce.[4] He was indeed fearful that, exposed to evil, men might choose it rather than good. Given the chance they might listen to the 'sirens lulling unheedful men to sleep by the false sweetness of their song! Comenius concludes 'perverse is the heart that finds its pleasures in the names of gods and goddesses . . . where all is romance'.[5] Perverse indeed!

In any case Comenius had enough experience of bigotry and intolerance not to be alarmed by the prospect of any group of men having control over the means of communication, since he was a champion of the rights of minorities and a stickler himself for freedom of conscience. Therefore the kind of censorship he had in mind was not that which tried to exclude unwelcome criticism, or to stifle, debate but could be used as a means of maintening a common stand-point from which all opinions proceed. Evil must be barred, because it undermined the basis of the good life. To admit it in the name of freedom would be to destroy true freedom. Therefore men must be immunized against evil, not exposed to it and so, although he was aware of the futility or tyranny of curbing freedom, he was even more concerned about the folly of giving rein to licence. His conclusion, after much heart-searching, was that if the right men could be found to take charge of mass media they must be trusted to distinguish between good and evil. But to this there was a corollary—that a means of education must be devised which would incline men everywhere to be citizens of the one world. Thus schools must be primarily concerned with universal education by which international citizens might be produced.

The problem from which Comenius shied away was this. How can the 'right' men be chosen or, if chosen, how can they be prevented from becoming corrupted? He had no recipe by which the would-be controllers of men's minds could be kept pure in heart. It was the age-old problem—'Who shall watch the guardians?' According to his plan these guardians were 'to keep watch as from a high tower lest anything unworthy should creep in'.[6] But there was nothing in the plan to ensure that they did not become pedants or inquisitors, dodderers or tyrants. Since the distinction between good and evil is sometimes far from sharp,

it is hard to see how the college of light, in making decisions would not become a stronghold of its own prejudices and eventually a bastion of its vested interests.

Comenius tried to lay down safeguards. The members of the universal college must be 'chosen from the whole world'. They must be 'an alliance of a great number of men'. They must be preserved from 'work which distracts them so that they are unable to give their thought to universal problems' but on the other hand they must not 'take as their goal the lucre of moneybags'. [7]

To the question of where such men are to be found Comenius gave a tentative answer. He was far from convinced that the best leaders might be found among the ruling class—the courtiers, politicians, soldiers, divines and scholars. Rather he was drawn to members of minority groups who seemed to be better motivated. There were a number of such groups in the Europe of the seventeenth century trying to detach themselves from the evil around them. Some were religious. The Unity of Brethren was a typical example. Some were looking for the return of Christ to earth which Comenius took to be a symbol of the new society which he hoped to create. There were some like the Rosicrucians who combined the mystic with the occult. Some, like the alchemists, were trying to solve the basic secrets of nature. Above all, he was attracted to those who were inspired by the teaching of Francis Bacon but were also seeking to turn their science into a means of establishing some utopia on earth. He knew very well that, amongst these various groups, there were charlatans and fanatics but yet he felt that there were enough genuine scientific idealists to constitute a genuine college of light. It was for the purpose of forming such an institution that he came to England and took part in the deliberations of the 'invisible college'.

The group which most impressed him was the English Royal Society which in 1660 put on a more permanent basis the more informal 'invisible society'. To its members Comenius enthusiastically dedicated his 'Via Lucis' (Way of Light) and said of them, 'Throughout the world the news will be trumpeted that you are engaged in labours the purpose of which is to secure that the empire of the human mind over matter shall not for ever continue to be a feeble and uncertain thing'. [8] It seemed not

unreasonable that those who could secure the 'empire of the human mind over matter' should be responsible for the propagation of ideas, and the conception of an 'order of scientists' devoted to the improvement of human affairs is a bold one, but not without its attractions. Indeed, it might be said that scientists are peculiarly fitted to constitute themselves a 'college of light' since their disinterested search for truth is essentially international. The scientific and technical officers of the contemporary international organisations are frequently men devoted to the ideal of universalism and of the total development of human resources. An international body composed of representatives of the Food and Agricultural Organisation and the World Health Organisation might well combine with representatives of UNESCO to mobilise public opinion throughout the world for the building of a world community.

Comenius, however, was concerned that scientists might put too much emphasis on material improvement and too little on spiritual improvement. He foresaw the dangers of a technological Utopia offering standards of living in exchange for the soul. He warned the Royal Society that if they neglected the spirit of man they would make a 'Babylon turned upside down, building not towards heaven but towards earth'. [9] Nevertheless Comenius found himself out of sympathy with those who conceived the New Jerusalem as an enchanted island for escapists. The Utopia which he found most satisfying was of the kind described by his contemporary, John Valentine Andreae 'as it were one single workshop' but whose greatest boast was of continual peace. [10]

Comenius was convinced of the feasibility of such a community but he accepted the need for curbs to the power of its leaders. Thus his college of light should only have authority within its own sphere, while for other spheres there should be other institutions so that there would always be a balance of powers. Not even the national state should, in his view, have ultimate power, still less some supra-national state. No sovereignty should be absolute—that was the political theory of Comenius—and therefore he proposed international courts of appeal, each supreme within its own sphere but none exercising control over another; the peace tribunal to settle social and political conflicts, the spiritual tribunal to foster religion and morals, the education tribunal to propagate ideas and organise schools. These tribunals

were to be international in scope, but, under their jurisdiction, local institutions from the state to the family should reflect the same sub-divisions of power.

Comenius had a different view of the social contract from that held in the seventeenth century, according to which authority was entrusted totally to the state. His proposal of a 'constant gradation' of authority, and of a division of powers at each level, was designed to reduce or avoid power blocs and military alliances, and also to overcome the evils of the rootless mass who do not participate in government. The world community must provide for local autonomy without becoming fragmented.

His views on government were largely conditioned by his experience of war which continued for most of his life. When there were negotiations for peace he tried in every possible way to bring his influence to bear, because he always saw the conference table as a possible starting point for the kind of world he looked for. To understand his thought it is necessary to look, however briefly, at the wars of the seventeenth century. It has been estimated that during this century there were only seven complete calendar years in which there was no war between European states.[11] Thus war was taken for granted as a feature of life.

Concerning the Thirty Years War (1618-1648), one of the most awful and futile of all wars, certain features stand out :

1. It brought a maximum of misery and destruction to Central Europe. Even in Bohemia, which did not see the worst of the fighting, the population is reckoned to have been reduced from four and a half million to just over one million.[12]

2. It was a religious war between Catholics and Protestants. Yet religion itself suffered in consequence. Catholic France intervened on the Protestant side in order to gain German territory. Protestantism was all but extinguished in Bohemia. In Germany religion became formal and arid. In all countries many people came to reject it as something to fight for, and turned to other objects.

3. It was in one sense a war to secure the unity of Europe. In fact it resulted in the 'Holy Roman Empire" (of German-speaking peoples) being reduced to the level of a fiction, while numerous petty princedoms became independent and tyrannous. Germany became a shattered shell.

4. In another sense, it was a war about different patterns of government—on the one side the Habsburg ideal of centralised autocracy and, on the other, the Dutch ideal of a republican federation. In the result, both patterns failed in central Europe and the conflict for supremacy passed to England and France.
5. Most of the participants in the war fought through fear, and in hope of ultimate peace. In fact there was for the time being an almost complete breakdown of the social order.

The character of the Thirty Years War has been summed up as follows : 'The war solved no problems. Its effects, both immediate and indirect, were either negative or disastrous. Morally subversive, economically destructive, socially degrading, confused in its causes, devious in its course, futile in its results, it is the outstanding example in European history of meaningless conflict'. [13]

It is not to be wondered at that Comenius was in despair as he contemplated such a senseless misuse of human effort. He complained bitterly that his own people has been betrayed by the Swedes. Upon the House of Hapsburg, which had led the Catholic policies, he never ceased to heap blame upon blame. He saw how the voiceless masses were sacrificed for the profit of those who made war their business, the 'entrepreneurs' who organized campaigns for others to fight, the 'cannon-merchants' who offered their wares to the highest bidder. At the same time he frequently found himself on the horns of the pacifist dilemma of resisting and defeating what he considered evil and this led him from time to time into the political arena.

The other war in which Comenius was vitally concerned, that between the English and Dutch (1664-1667), was not so devastating, but equally shattering in its implications. Here there were no religious or political differences and no territorial claims and the two countries were in the vanguard of European thought and progress. It was solely a question of commercial, maritime and colonial rivalry. It was a fratricidal quarrel. When both sides decided that the war should be terminated, and sent their plenipotentiaries to Breda to negotiate peace, Comenius felt it was time for him to make a move and so he addressed to them a pamphlet entitled 'The Angel of Peace'. In it he begged them not to turn peace-making into a bargaining process, but to act in such a way as to eliminate any future conflicts. He urged

the extreme profitability of magnanimity. By redressing wrongs done, rather than seeking compensation for wrongs suffered, he believed they could give the world a model for the settlement of any disputes. In particular he urged them to consider the interests of makind in making arrangements for themselves. True peace would not be served by carving out spheres of influence ignoring the rights of the native inhabitants of overseas lands. He is scathing about national prosperity built on inflation, and asks 'what is the good of Europe loading herself with African and American silver and the pearls and precious stones of Asia, if the immense increase in the stocks of metal has been accompanied by an enormous rise of prices, so that today 100,000 guilders mean scarcely more than what a few ducats were to our grandparents?'. [14]

Comenius advocated universal and independent authorities for peace, for religion and for broadcasting ideas, but he believed that there must be a common language throughout the world if all men were to become international citizens. The multiplicity of tongues was one of the biggest obstacles to the universal community, because it made travellers take their insularity wherever they went, and severely limited the possibilities of mass media. The language barrier made people deaf to each other and cut them off from international communication.

The solution to this problem envisaged by Comenius was that everyone should be bi-lingual. Each man should have his own vernacular in which he could express his deepest feelings—a language of the home—and in addition should have a lingua franca by which he could speak to anyone beyond his own linguistic group and give his attention to the propagation of world news and ideas—a language of the market-place, of travel and of mass media.

As native of a comparatively small nation, speaking a tongue little spoken by foreigners, he was especially concerned that internationalism should not oust vernaculars. In fact, the Czech language became the target of an oppressive government trying to stamp it out, while Comenius saw it as expressing the soul of his people. Though an exile, he continued to do what he could to keep it alive. For many years he collected Czech proverbs and wise sayings in "A Treasury of the Czech language". After his death, some of his books were secretly distributed to homes

of peasants who kept outside the sign of a juniper tree, and this helped them through the dark ages of Czech history to keep their language alive. For Comenius, the suppression of a vernacular would be like murdering the soul of a people. If it were crude and boorish, all the more reason why those who spoke it should refine and extend it to cover the full range of thought. A people's native language was, according to Comenius, something almost sacred; the proper medium of its sentiment, the messenger of its spirit, the sesame by which its children gained their first basic concepts.

As an exile for most of his life, Comenius was deeply appreciative of the fact that in Latin he had a means of communication with men of every country. Most of his books were in Latin for the simple reason that he could only reach people that way. He was a prolific letter writer, but again Latin was the normal means of expression among scholars. Latin enshrined the thought of the Ancients; it gave Europe a basis of culture; it was the language of religion and of science.

On the other hand, he had little patience with those who wanted to preserve Latin as spoken by Cicero. Classical Latin he called a 'nymph on whom unbounded admiration is generally wasted'. [15] The fact that generations of schoolboys were driven to it seemed to him due to the stupidity of the teachers rather than of the children. Their grammar-books ('stable-refuse of the devil' Luther called them) were unbelievably complicated by exceptions and irregularities. The more the teachers flogged, the less the pupils learned, but Comenius was convinced that an acceptable form of Latin could be acquired by anyone to serve as a lingua franca, not simply for scholars, but for everyone. To this end he spent a good part of his life in trying to open the gateway to fluency in Latin, using pictures, or any other device, to make it easy and pleasant.

Eventually, however, he turned away from this solution to a universal language. Nothing that he could do to adapt it for ordinary people could overcome the fact that Latin was a dead language which could not be resurrected. Indeed, even scholars were beginning to find how much better they could express themselves in their own tongues. Comenius did not have the advantage of having as his vernacular one of the major European languages, and he did not foresee that, even for the learned,

Latin was losing its supremacy for international use. However, he did see the strong argument against it that there were uncounted millions of men in the newly-discovered lands who had no links with classical Rome. But they also were citizens of the world.

So the answer he favoured was an artificial language, as simple as possible, and free from all exceptions and anomalies. He was not alone in this and kept in touch as much as he could with experiments in language construction, especially in England.[16] Nevertheless the thought of Comenius in this matter took, as he said, a 'higher flight'. This was that the new language should be constructed from a system of symbols each one of which would represent some property or quality, so that a person hearing or reading a word for the first time would at once be able to recognize what kind of thing it represented. If he knew the meaning of the symbols he would know the meaning of the word, and there could be no ambiguity. Thus particular qualities should be assigned to particular phonemes, and there would be an obvious parallel between the form of the word and its meaning, and each thing would have only one name which could apply to nothing else. Thus the form of a word would be its definition. Although there is an infinite variety of qualities, he argued that they could be reduced to a manageable number of basic elements — he suggested about 300. To increase the possibilities he suggested a range of prefixes and suffixes, but he did not think this would result in any loss of clarity — rather it would give greater flexibility.

Comenius did not work out his system in detail. He was trying to explore the field, and undoubtedly he did not face up to the immense difficulties of constructing such a linguistic algebra as he proposed. It may be possible in a limited range of properties, as in science, but in common language we are constantly seeing new properties in the things around us which we ascribe to them. Comenius wanted a lingua franca such that a literal translation could be made into any vernacular without confusion of meaning and linguists would call this a hopeless task.[17] Nevertheless the idea of some kind of computerised language has many attractions to modern man, presented as he is, with the confusion of Babel. If such a language could be devised it would bring much nearer the possibility of international citizenship. The emergence of

computer languages, and of talking machines able to break language up into units and then recognize them, should make us hesitate to dismiss this conception. With computers there seems no inherent impossibility, and it would certainly be an enormous advance if people of all races could communicate with each other without confusion.

In concluding this essay let us look at the positive contribution made by Comenius to the concept of international citizenship. His fundamental message was that we should *never* despair. However black things may look, we should cultivate hope. We cannot cut ourselves off from the past, but we should not let the past dominate the future. As individuals we are inevitably limited to our own narow point of view, but we must make ourselves look further. As we become world-minded we shall be on the way to make the world one. We start, as we must, from our own environment and experience, but we move on from the particular to the universal. In all things we are, or should be, striving towards more and more coherence.

Comenius draws our attention to the enormous possibilities of modern means of communication. He thought printing was marvellous. We have, he said, at our disposal something of stupendous potential. Should we not, therefore, take courage and use our mass media deliberately and consistently to propagate peace and co-operation? Should we not appoint the very best people as broadcasters and give them the same independence of political or other pressures as a judge?

Of course this raises, as we have seen, the problem of how to select the best people. Here Comenius gave little guidance beyond saying that they should be enthusiastic internationalists moved "to secure that the gifts of God are enjoyed in widest commonalty throughout the world".[18] The potentiality, both for good and for evil, of those selected to influence public opinion is so great that all the resources of modern science should be used to make sure that the right people are chosen.

Few people would disagree with the arguments about positive peace-making. Also the position of Comenius on social equality is fundamentally right. It is wrong that some should live in degrading poverty while others have a superfluity of luxury. The ever-widening gap between the rich and the poor, the 'haves'

and the 'have-nots', the developed and the under-developed is deplorable.

But would all go along with Comenius in saying that this is not simply a question of giving wider opportunities for the good jobs and the modern conveniences, which may be in short supply anyhow? Nor is it only a matter of redistributing wealth or of raising standards of living. No doubt these are excellent objectives but the belief of Comenius was that the *quality* of living for all, rich and poor alike, is the most important consideration. Can we really dissent from this when we have so much evidence that satisfying physical needs does not necessarily mean raising spiritual standards? We in the West have been able, thanks to technology, to make people better off, but we have failed to make them better people.

This focuses attention upon the central concept of the universal philosophy of Comenius, namely that education is the key. Here again we must insist that it is *quality*, not quantity, that counts, although education should be equally available to all men everywhere. But a great deal of present day education fails altogether to grapple with the real problems of human progress. Here we have only space to comment on the fact that education should be concerned with making men and women world-conscious. We need teachers who are dedicated to the ideal of international citizenship, teachers who will imbue their pupils with the 'one-world' concept. Nothing short of this will make this planet safe for future generations of the human race; nuclear war could leave only a few survivors, in regions near the poles, to which nuclear fall-out might not have been carried. To promote the idea of international citizenship, Comenius wanted a college of light in every country: if those who today prepare teachers for their work and those who lead the organisations of teachers have the international vision, and use the help of UNESCO, the objective of Comenius can be achieved.

However much he may have felt that the universal ideal required the training, selecting and supporting of an elite of leadership without any discrimination of sex, race, status or religion, Comenius was quite clear that education was primarily for the followers. If ordinary men and women were not properly educated the efforts of the leaders would be wasted. All men everywhere were equal in their need for education, since the purpose was

to produce, not a leader class, but a total community. Not only should all go to school but, even more important, all should be enabled to continue their education throughout life, and this was just as true for the lowest intelligence as for the highest. Anything less would be, as Comenius saw things, an utter negation of the universal idea. All or none — that was his prescription for the new society.

Does emphasis on internationalism depreciate local and particular loyalties? Not at all! Comenius, a prototype of international citizens, never lost his sentimental regard for smaller groups. He transcended them. He gave devoted service to his own small church — the Unity of Brethren — but he was not hopeless when it seemed likely to break up because he felt himself to belong to the wider church universal within which all sects and creeds are embraced. He was a Czech patriot—one of the greatest in fact. This did not stop him from being a self-conscious European. He was a noble product of Western civilisation. This in no way prevented him from feeling identification with the whole family of man, irrespective of colour, race and creed. In most of us these wider loyalties are vague and tepid. In Comenius they were urgent and deeply felt. Each narrow loyalty strengthened and deepened a wider loyalty. Each wider loyalty extended and gave more coherence to the narrower.

If the story of his life, resurrected for the tercentenary of his death, compels our admiration and deepens our concept of mankind as a human family, should we not, like Comenius, drive ourselves, relentlessly, in faith and optimism, to work for the things that ought to be?

NOTES

Chapter 1.

1. For details with regard to the Unity of Brethren see Note 2 to Chapter 2.
2. His membership of the Unity of Brethren caused him to be barred on religious grounds.
3. See Note (1) to Chapter 3.
4. Richelieu, Armand-Jean du Plessis (1585-1642). Cardinal de Richelieu was Minister of Louis XIII and one of the greatest statesmen that France has ever had. The historian, Thierry, wrote of him "Everything that could be done in social advancement at that time was in fact brought about by Richelieu, whose intelligence understood everything, whose practical genius never overlooked anything, ... who moved from idea to action with marvellous ease, who possessed, to a unique degree, the spirit of universality and of intellectual freedom". He encouraged the advancement of knowledge and founded the Académie française.

Chapter II.

1. Very summarised information about this is given in the final chapter : "Comenius as an international citizen".

2. Hus, John (1367-1415). A professor at the Charles University of Prague, was a follower of the English Church reformer, John Wycliffe. His most important writing was *De Ecclesia* in which he declared that the head of the Church is Jesus, not a pope. Purity of character and outstanding qualities of mind and heart made him a very influential preacher in the Bethlehem Chapel in Prague, the first Reformation church in Europe. When he was banished from Prague he preached in the Czech countryside : also he was responsible for the introduction into Divine Services of hymns in the Czech language, which he also established as a literary language. His religious teachings were based firmly on those of Jesus and he advocated Christian democracy and so was critical of the feudal order. Many adversaries arose in the Church and the court and finally after being tried and sentenced by the Council of Constance, he was burned alive, even though the Emperor Sigismond had promised him a safe-conduct to and from Constance.

3. The Unity of Brethren is a religious group tracing its origin back to the Hussites, i.e. to the numerous groups of followers of John Hus which had sprung up not only in Bohemia, but also in Poland, Germany, Hungary, Rumania and other countries after the martyrdom of Hus. [The Czech Hussite, Peter of Kravare, a physician, was burned alive at St. Andrews, Scotland in 1429]. It was one of the more radical Hussite groups, a small congregation believing in the communal life of the early Christians, and seeking to put it into effect ["And the multitude of them that believed were of one heart and one soul : neither said any of them that ought of the things which he possessed was his own ; but they had all things common" Acts 4 v. 32. Authorised Version]. They were also, in accordance with Christ's teaching, complete pacifists and were called "people without a sword". This group established itself in eastern Bohemia in 1467, having added to the ideas of John Hus those of one of his disciples, Peter Chelcicky, who demanded that Christians should live by the precepts of the Sermon on the Mount".

4. In Britain the Open University or "University of the Air" has, from 1970, offered the possibility of studies leading to a degree to all who wish and are prepared to study. See also Note 13.

5. In 1955 a book called "The Education of Good Men" by the Director of the Oxford Department of Education, and formerly a very distinguished Headmaster of a leading Nonconformist Public School, was published by Victor Gollanez. But since that date few books published in England on education have, in the title, openly expressed any concern of educators with the quality of behaviour of their pupils. See also Note 14.

6. MONTAIGNE, Michel de (1533-1592). A French philosopher of "life wisdom". In his thoughts on education, found in his "Essays", he advocated health of body and of mind, he demanded knowledge which would be not formal but based on learning real things. Education, in his conception, should contribute to an improvement of morality and of life; children should be brought into contact with the reality surrounding them, namely with concrete things and phenomena.

7. RATKE, Wolfgang, Ratichius (1571-1635). A German reformer of schools and education. In his "Frankfurter Memorial" and "Erklärung" he demanded education of all in a system directed by the state; he advocated natural, gradual education from vernacular and emphasised the role of the teacher at school. Comenius wanted to get to know his works but Ratke did not send them.

8. MORE, Thomas (1478-1535). An English Humanist, author of "Utopia", the vision of an ideal society. He advocated democratic education and demanded that children while still babies should be afforded free movement and play. Children should be greatly loved by parents and old people. More suggested also illustrations for school education, pictures on walls, etc.

9. CAMPANELLA, Thomasso (1568-1639). An Italian theologian, philosopher, combining theological teaching with the philosophy of nature, author of the social utopia "Civitas solis" in which he asked general social education of children from the second year of their age. He spoke about physical training, language education, training in literacy beginning with the alphabet. He might have influenced Comenius, especially as a philosopher of nature and of the universe.

10. ANDREAE, Johann Valentin (1587-1654). A German poet, theologian, author of many utopian works; he emphasised practical Christianity, and pictured a better Christian society (e.g. "Christianae societatis imago", 1619, "Reipublicae Christianopolis descriptio", 1619, "Christiani amoris dextra porrecta", 1620).

Comenius was influenced by some of his ideas and corresponded with him, discussing also the problem of universal wisdom, and considered him one of his literary teachers, though he himself developed independently.

11. HASENMÜLLER, Sophonias was a German teacher in Heilsbronn, and later in Nuremberg. He wrote poems and in 1615 a small educational book "Didactica". His main interest here was to assist the learning of Latin. In 1624 he published "Scholarum particularium brevis designatio et requisitorum notatio cum Didactica et libellis scholasticis" where he writes about a vernacular introductory school preparing for the Latin school. A group of children are "pusili", i.e. young ones who cannot read and write, but who may be trained in correct pronunciation, in praying, in proverbs and counting from 1 to 100. The second group of an older age is introduced to reading and writing; the children have got a "Lesebüchlein" (Spelling book) and "Schreibbüchlein" (Writing book), with a model how to write, and a German catechismus. The third group is formed of children who know how to write and read, learn singing and are taught about German correspondence. Comenius used some suggestions of Hasenmüller for the education of the young ones ("pusili"), but he develops a fundamentally different conception.

12. SAAVEDRA, Fajardo Diego (1584-1648), was a Spanish writer and statesman; he wrote a political-educational consideration "Empresas politicas o idea de un principe Cristiano." (An idea of a Christian ruler). Comenius quoted the Latin edition "Idea principis christiani centum symbolis expressa". He also mentions some of his principles concerning education of young children, e.g. they could be introduced into the alphabet by means of little bricks with written letters on each side, etc. but also that they should be steadily trained to stand up to physical discomforts and hardships, or, in modern English parlance, to "toughen" themselves.

13. In Czechoslovakia there are also sound-radio and T.V. universities and "people's universities".

14. In Czech literature a similar book is that of J. Jaws-Gamma "Bråfde frivote" (Farrow of Life).

Chapter III.

1. Bacon, Francis (1561-1626). The famous English philosopher who was one of the creators of the experimental method. His writings made him one of the most powerful exponents of the application of this approach to many of the problems of life.
2. Descartes, René (1596-1650). The famous French geometrician and philosopher who developed a method, hitherto unknown, of applying human reason to metaphysical matters. The essence of this method, known as Cartesianism, can be expressed in his statement: "To attain truth, it is necessary to empty the mind of all the opinions which it has received and to reconstruct afresh, and from the foundations, one's system of knowledge". He is often regarded as the forerunner of modern psychology.
3. Leibnitz, Gottfried Wilhelm (1646-1716). Celebrated German mathematician and philosopher, who discovered, at about the same time as Isaac Newton, the bases of the differential calculus. He was of an optimistic temperament and strove to bring about fusion of the Catholic and Protestant churches. His optimism is summed up in his phrase "Everything is for the best in the best of all possible worlds".
4. Goethe, Wolfgang (1749-1832). The most famous of German poets: also a great writer and thinker and for some while Minister of State to the Duke of Weimar.
5. Herder, Johann Gottfried (1744-1803). A celebrated German writer and philosopher. His most famous work was his "Philosophy of the History of Humanity".
6. Michelet, Jules (1798-1874). One of the greatest of French historians, with broad liberal views which twice brought him into conflict with authority.
7. Rousseau, Jean-Jacques (1712-1778). One of the most important French writers of all time, born the son of a watchmaker in Geneva. He preached the return to nature, the necessity of a social contract which guarantees the rights of all and, in his "Émile", laid the foundations of educational psychology. His passionate and eloquent writing regarding human rights played an important part in forming the thoughts of those who brought about the French Revolution in 1789.
8. Pestalozzi, Johann Heinrich (1746-1827). The Swiss schoolmaster, born in Zurich, who, profoundly influenced by the educational ideas of Jean-Jacques Rousseau, established new methods of

teaching, especially of young children and by his writings brought great advances in child psychology.

9. FROEBEL, Friedrich (1782-1852). A gifted schoolmaster who, beginning with enthusiasm for Pestalozzi's educational theories, subsequently worked for two years at Pestalozzi's school at Yverdun and from this experience derived still greater inspiration. His enormous and enduring contribution to education was the Kindergarten (garden of children), for children under six years of age, and the principles associated with such establishments. In his words "The first voluntary employments of the child, if its physical needs are satisfied are (a) observation of its surroundings, spontaneous reception of the external world, and (b) play which is independent outward expression of inner action and life". The occupations, which increase in complexity as the child advances in the Kindergarten, are (1) the "Gifts" and "Occupations", intended to familiarize the child with inanimate things, (2) gardening and the care of pets, to produce sympathy with plants and animals, (3) games and songs like those Froebel composed, intended to acquaint the child with the inner life of animals and humanity. Froebel held that nature is the manifestation of Good, and the study of it, involving the contemplation of *outer* facts, is the necessary complement of religion, which requires *inner* contemplation.

10. HEGEL, Georg Wilhelm Friedrich (1770-1831). Early in his life he was a private tutor and subsequently for eight years headmaster of a new "gymnasium" (i.e. Grammar School) at Nuremberg; later he achieved fame for his philosophy, based on the belief that God is everything and everything displays God, he stated that "Pedagogy is the art of making man moral. It regards man as one with nature and points the way in which he may be born again and have his first nature changed into a spiritual nature, in such fashion that the spiritual nature may become habitual to him". He held that obedience to authority, reverence for the spiritual achievements of the past, and self-renunciation should lead on to a new spiritual self which reaches its full development only in identification with the spirit of the nation. The home, the school, the social class, the church and the nation all play their part as instruments of education; but among these the State is pre-eminent, as "the higher authority to which the laws and interests of the family and the civic community are subject and upon which they are dependent". These principles came to permeate and to govern the educational philosophy of Prussia.

11. EMERSON, Ralph Waldo (1803-1882). An American philosopher born at Boston, author of a book entitled "Representatives of Humanity" which had a profound effect upon American thinking for many decades.

12. KEY, Ellen (1849-1946). Swedish educationist and essayist. Her most famous writing was the book entitled "The Century of the Child" (1900). This was translated into English in 1909 and after that was read around the world and made her world famous. She lectured widely in Europe, especially in Germany, and influenced many young authors by the voluminous correspondence which she maintained with people who wrote to her following up her ideas.

13. CLAPARÈDE, Édouard (1873-1940), Doctor of Medicine; was Head of the Laboratory for Experimental Psychology at the University of Geneva and Professor of Psychology in the Faculty of Sciences from 1904. He founded in 1912 the Jean-Jacques Rousseau Institute of the University of Geneva and through this had great influence on the development of child psychological studies in the first quarter of the 20th century. One of his most famous books is "Experimental Pedagogy and the Psychology of the Child", the fourth edition of which was translated into English and published in London in 1911.
In 1921 he offered the post of Director of Research at the Institute to Jean Piaget and it was there that Piaget did the work which led to the publication of his first five books on children.

Chapter IV.

* All the quotations from the actual writings of Comenius are translations from the French translation of "The Great Didactic". The book used is "La Grande Didactique, traité de l'Art universel d'enseigner à tous. Introduction et traduction par J.-B. Piobetta". Published by Presses universitaires de France, Paris 1952.

1. G. D. Chapter XI. 9.
2. G. D. Chapter XII.
3. G. D. Chapter XIV.
4. G. D. Chapter IX. I.
5. G. D. Chapter XI.
6. G. D. Chapter IX. 2.
7. G. D. Chapter VIII. 4.
8. G. D. Chapter XXIX. 2.
9. G. D. Chapter XXIX. 3.
10. G. D. Chapter IX. 5.
11. G. D. Chapter IX. 4.
12. G. D. Chapter IX. 4.
13. Pampaedia Chapter II. 10.
14. G. D. Chapter XVIII.

Chapter V.

1. Via Lucis XXI. 7.
2. Via Lucis XIII. 7.
3. Via Lucis XVIII. 14.
4. Pampaedia IV. 15.
5. Great Didactic XXV. Panorthosia XVI.
6. Panorthosia XV. 3.
7. Via Lucis XVIII. Panorthosia XVI.
8. Via Lucis Dedication 13.
9. Via Lucis Dedication 24.
10. J. V. Andreae (Christianopolis 1619). Tr. F. E. Held (New York 1916).
11. G. N. Clark, The Seventeenth Century (1950), p. 98.
12. Seton Watson, History of Czechs and Slovaks (1943), p. 130.
13. C. V. Wedgwood, The Thirty Years War (1938), p. 460.
14. Angelus Pacis 29.
15. Great Didactic XXIX. 3.
16. Cf. article by V. T. Miskovska in "Philosophy," July 1962.
17. Simeon Potter, Linguistics, p. 100.
18. Via Lucis XVIII. 4.

BIBLIOGRAPHY

I. The Major Works of Comenius

Comenius was a prolific writer and during his life-time he wrote about two hundred works. A considerable number (about fifty) were lost although there have been some remarkable 'finds' of works previously thought to have been destroyed. The following is a list of major works of which translations in English or French are available :

1. The Labyrinth of the World and the Paradise of the Heart

Published at Leszno in 1631.
Translations: Count Lutzow (London 1901)
Matthew Spinka (Chicago 1942)
M. de Crayencour (Lille 1906)

2. The Gate of Tongues Unlocked (Janua)

Published at Leszno 1631.
Translations: John Anchoran (London 1633) without any acknowledgement to Comenius
John Rowbotham (London 1641)
O. de Varennes (Paris 1646)
C. Venier (Autun 1898)

3. The Porchway of the Latin Tongue (Vestibulum)

Published at Leszno as an introduction to the Janua (1633)
Translation: J. Brookbank (London 1647)

4. The School of Infancy (Informatorium)

This was a guide-book written for mothers between 1628 and 1631
Translations: David Benham (London 1858)
W. S. Monroe (Boston 1893)
E. M. Eller (N. Carolina : Univ. Press, 1956)

5. The Great Didactic (Didactica Magna)

Comenius wrote a Czech version of this work between 1628 and 1632 including a *Brief Proposal regarding the Renewal of Schools in Bohemia* parts of which are given in English and French in the Selections of the University of 17th November (Prague 1964). The Latin version was written in 1636 and included by Comenius in his Collected Works of 1657.
Translations: M. Keatinge (A. & C. Black, London 1896)
J. B. Piobetta (Paris 1952)

6. **Natural Philosophy** (Physicae Synopsis)

Published at Leszno 1633
Translation: (London, 1651)

7. **Tractates introducing the Pansophic Ideas of Comenius** (Prodromus, 1639 Dilucidatio, 1639 and Diatyposis 1643)

Translations: A Reformation of Schools in Two Excellent Treatises. Samuel Hartlib. (London 1642)
A Pattern of Universal Knowledge. Jeremy Collier. (London 1651).

8. **The Way of Light** (Via Lucis)

Written in 1642 while Comenius was in England but published at Amsterdam in 1668 and dedicated to the newly formed Royal Society of London.

Translation: E. T. Campagnac (Liverpool, Univ. Press, 1938)

9. **The Newest Method of Languages** (Methodus)

This was written at Elbing between 1642 and 1648 as a basis for the pedagogical methods advocated by Comenius. The tenth chapter is the most important and is known as the Analytical Didactic.

Translations: An abridged English version is given by A. Turek in a Thesis of Durham University (1951)
Analytical Didactic, V. Jelinek (Chicago Univ. 1953)

12. **Outline of a Pansophical School** (Delineatio)

Written at Saros Patak in 1650-51 as a description of the kind of reformed school Comenius hoped to establish.

Translations: Part of Thesis by A. Turek as above.
Selections in English and French in Collection of University of 17th November as above.

11. **Picture of the World** (Orbis Rictus)

Written at Saros Patak for beginners in Latin but first published at Nuremberg in 1658. Very soon after an English version by Charles Hoole was published in London. A facsimile copy was published by Oxford University Press in 1968. A facsimile of the 1672 edition was published by Sydney University Press in 1968.

12. **Exhortation of the Churches of Bohemia to the Church of England**

This was published at Amsterdam in 1661 and included an account of the discipline of the Czech Unity of Brethren. An English translation followed immediately. The account of the Unity's constitution was translated by B. Seifferth in 1866.

This is really a series of works on which Comenius was engaged from about 1642 until his death in 1670. He intended it as a comprehensive survey of the universe and of the wisdom necessary for human happiness.

13. **General Consultation about the Improvement of Human Affairs** (Consultatio)

The Consultation consists of seven Parts of which the most important are as follows :

a) *Pansophia* consisting of eight books corresponding to what Comenius believed to be the spiritual structure of the universe.

b) *Pampaedia* in which Comenius considered the education 'of all men, about all things, in all ways'.

c) *Panglottia* in which he put forward proposals for a universal language free from all ambiguity and confusion.

d) *Panorthosia* dealing with all aspects of social reform.

The whole collection of these books was published by the Czechoslovak Academy of Science in 1966.

Translations of important sections in English and French may be found in the following collections :

1. Unesco Selections (Paris 1957)
2. University of 17th November Selections (Prague 1964)
3. Educational Thinkers Series (Collier Macmillan 1969) (Comenius)

14. **The Angel of Peace** (Angelus Pacis)

Published in 1667.

Translation: W. A. Morison (1944).

Note: In 1657 Comenius published at Amsterdam a Collection of his works up to that time. It was arranged in four chronological sections : I) 1627-1642, II) 1642-1650, III) 1650-1654 and IV) From 1654. A new Edition was published by the Czechoslovak Academy of Science in 1957 (Opera Didactica Omnia).

II. Works concerning Comenius

For a long time after his death Comenius was neglected although his school-books (Janua and Orbis Pictus) continued to be popular. Interest in his educational thinking was revived in the nineteenth century by R. H. Quick, Educational Reformers 1868 Ch. X and by Gabriel Compayré, Histoire de la Pédagogie 1887 Ch. VI. At the end of the century a number of books were published about him of which the following are the most important in English :

Monroe Will S., Comenius, the Evangelist of Modern Pedagogy (Boston 1892)

Maxwell W. H., The Text-Books of Comenius (N. Yk Educ. Review 1892)

Butler N. Murray, The Place of Comenius in the History of Education (New York 1892)

Keatinge M., The Great Didactic, Biographical and Historical Introduction (London 1896)

Laurie S. S., J. A. Comenius, His Life and Work (London 1884)

Monroe Will S., Comenius and the Beginnings of Educational Reform (New York 1900)

Adamson J. W., Pioneers of Modern Education 1600-1700 (C.U.P. 1905)

During the first twenty years of the twentieth century interest in the work of Comenius was largely centred in Eastern Europe but after 1920 a number of English and French scholars began to make contributions of which the most important are as follows :

Rusk R. R., Doctrines of the Great Educators, Ch. V (London 1918)

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Turnbull G. H., Hartlib, Dury & Comenius (Liverpool 1947)

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Sadler J. E., Introduction to the Orbis Pictus (O.U.P. 1968)
Sadler J. E., J. A. Comenius, Educational Thinkers Series with Selections from his works (Collier Macmillan 1969).

For some years research on Comenius has been largely centred in the Pedagogical Institute of Prague and since 1957 international studies have been collected in the Journal 'Acta Comeniano' at first half-yearly but since 1963 once every two years. This journal contains articles in English and French and frequently summaries of articles in other languages.

In 1958 the Czech State Publishing House published an English translation of a popular Biography of Comenius—The Sorrowful and Heroic Life of J. A. Comenius by František Kožik.